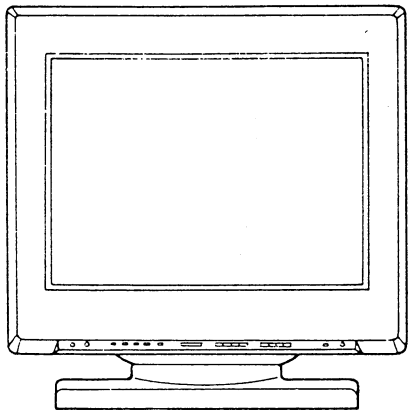
GDM-20E01/20E01T

SERVICE MANUAL



GDM-20E01
US Model
Canadian Model
Chassis No. SCC-G96A-A
AEP Model
Chassis No. SCC-G24C-A
GDM-20E01T
AEP Model
Chassis No. SCC-G24M-A

N-1 CHASSIS

SPECIFICATIONS

Picture tube	0.31 mm phosphor trio pitch 20 inches measured diagonally (19" visual) 90° - degree deflection
Effective picture size	Approx. 388 × 292 mm (w/h) (15 × 11 1/2 inches)
Resolution	Horizontal : Max. 1280 dots Vertical : Max. 1024 lines
Display picture size	Approx. 350 × 280 mm (w/h) (13 7/8 × 11 1/8 inches) or Approx. 360 × 270 mm (w/h) (14 1/4 × 10 3/4 inches)
Deflection frequency	Horizontal : 29 to 82 kHz Vertical : 50 to 150 Hz
AC input voltage/current	100 to 120 V, 50/60 Hz, Max. 3.0 A 220 to 240 V, 50/60 Hz, 1.8 A
Dimensions	474 × 474 × 501.5 mm (w/h/d) (18 3/4 × 18 3/4 × 19 3/4 inches)
Mass	Approx. 30 kg (66 lb 2 oz)

Design and specifications are subject to change without notice.

MULTI-SCAN®
COLOR GRAPHIC DISPLAY

SONY®

MICROFILM

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

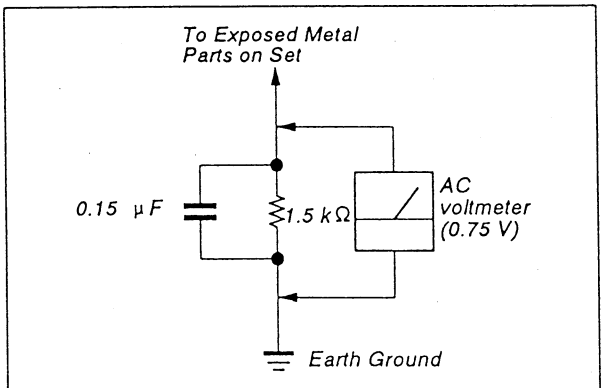


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVEE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

POWER SAVING FUNCTION

The unit supports the computers corresponding to the "Power Saving Function".

Power saving operation

- The H sync or V sync is not present.

  ⬇

  The unit goes into suspend mode.

- Both the H sync and V sync are not present.

  ⬇

  The unit goes into active-off mode.

Note

As this unit has the Power Saving Function, if you turn on the unit with no signal input, the unit goes into Power Saving mode and waits for an input signal.

CAUTION

Turn power off and disconnect the power cord when you will disassemble the unit since.

TIMING SPECIFICATION

Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Resolution (HxV) Dot Clock (MHz)	720x400 28.322	640x480 31.500	800x600 50.000	832x624 57.283	1120x750 78.430	1024x768 75.000	1024x768 78.750	1152x900 92.940	1280x1024 108.180	1280x1024 108.180	1152x870 100.000	1152x900 105.561	1280x1024 135.000	1280x1024 140.000
Horizontal														
Hor. freq. (kHz)	31.469	37.500	48.077	49.725	50.019	56.746	60.023	61.795	63.337	63.337	68.681	71.713	78.855	81.967
H-total	31.777	26.667	20.800	20.111	19.992	17.707	16.660	16.182	15.789	15.789	14.560	13.945	12.681	12.200
H-blanking	6.355	6.349	4.800	5.586	5.712	4.053	3.657	3.787	3.956	3.956	3.040	3.031	3.200	3.057
H-Front porch	0.636	0.508	1.120	0.559	2.193	0.320	0.203	0.301	0.407	0.407	0.320	0.152	0.237	0.229
H-Sync. width	3.813	2.032	2.400	1.117	1.428	1.813	1.219	1.377	1.701	1.701	1.280	0.909	1.067	1.257
H-Back porch	1.907	3.810	1.280	3.910	2.091	1.920	2.235	2.109	1.849	1.849	1.440	1.970	1.896	1.571
H-Active	25.422	20.317	16.000	14.524	14.280	13.653	13.003	12.395	11.832	11.832	11.520	10.913	9.481	9.143
(μsec)														
Vertical														
Ver. freq. (Hz)	70.087	75.000	72.188	74.550	60.047	70.069	75.029	65.950	59.978	59.978	75.062	76.047	74.112	75.966
V-total	449	500	666	667	833	806	800	937	1056	1056	915	943	1064	1079
V-blanking	49	20	66	43	83	38	32	37	32	32	45	43	40	55
V-Front porch	12	1	37	1	27	3	1	2	3	3	3	2	3	3
V-Sync. width	2	3	6	3	10	6	3	4	3	3	3	8	3	3
V-Back porch	35	16	23	39	46	29	28	31	26	26	39	33	34	49
V-Active	400	480	600	624	750	768	768	900	1024	1024	870	900	1024	1024
(Lines)														
Sync. H-Polarity V-Polarity Scanning mode	External (−) (+) Non-interlace	External (−) (−) Non-interlace	External (+) (+) Non-interlace	Internal NA NA Non-interlace	External (−) (−) Non-interlace	External (−) (−) Non-interlace	External (+) (+) Non-interlace	External (−) (−) Non-interlace	Internal NA NA Non-interlace	External (−) (−) Non-interlace	Internal NA NA Non-interlace	External (−) (−) Non-interlace	Internal NA NA Non-interlace	Internal NA NA Non-interlace

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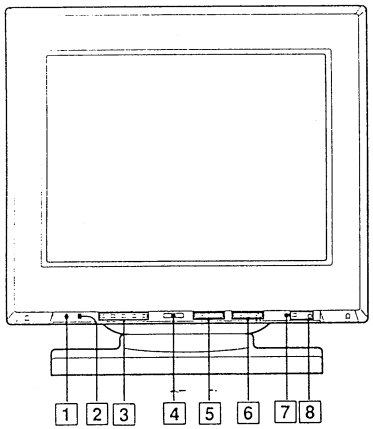
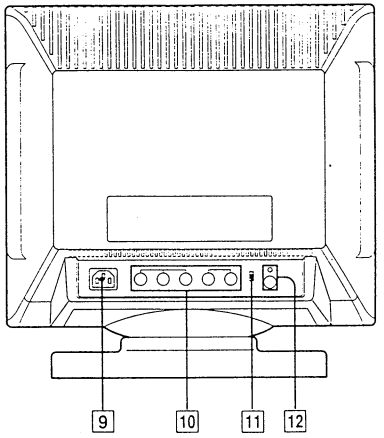
Function of Controls





1 **RESET button**
Press to reset the adjustment data to the factory-preset levels for the input signal being received.

2 **CTRL (control) button**
To reset all the adjustment data to the factory-preset levels, press the RESET button **1** while holding down this button.

3 **Indicator**
The indicator corresponding to the item selected with the SELECT button **4** lights up.
CENT: Centering
SIZE: Picture size
GEOM: Picture tilt/Horizontal pincushion
CONV: Convergence
C TEMP: Color temperature

4 **SELECT button**
Press to select an item.
Hold down for more than 1 second until an indicator lights up, then press repeatedly to select an item **3**.

5 **○ (brightness) buttons**
Press + or – to adjust the picture brightness.
When an item is selected, use these buttons to adjust the picture size and centering in the vertical direction and the picture tilt.

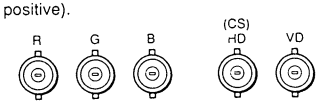
6 **◑ (contrast) buttons**
Press + or – to adjust the picture contrast.
When an item is selected, use these buttons to adjust the picture size and centering in the horizontal direction, the horizontal pincushion and the colour temperature.

7 **POWER SAVING indicator**
Lights up when the monitor is in Power Saving Mode. Blinks when you reached the limit of the adjustable range or while in resetting mode.

8 **⏻ power switch and indicator**
Press to turn the monitor on or off. The indicator lights up when the monitor is turned on. To disconnect the power supply, disconnect the AC power cord.

9 **AC IN connector**
Plug in an AC power cord.

10 **Video input connector (5 BNC)**
The connector accepts RGB video signals (0.714 Vp-p, positive).



Note

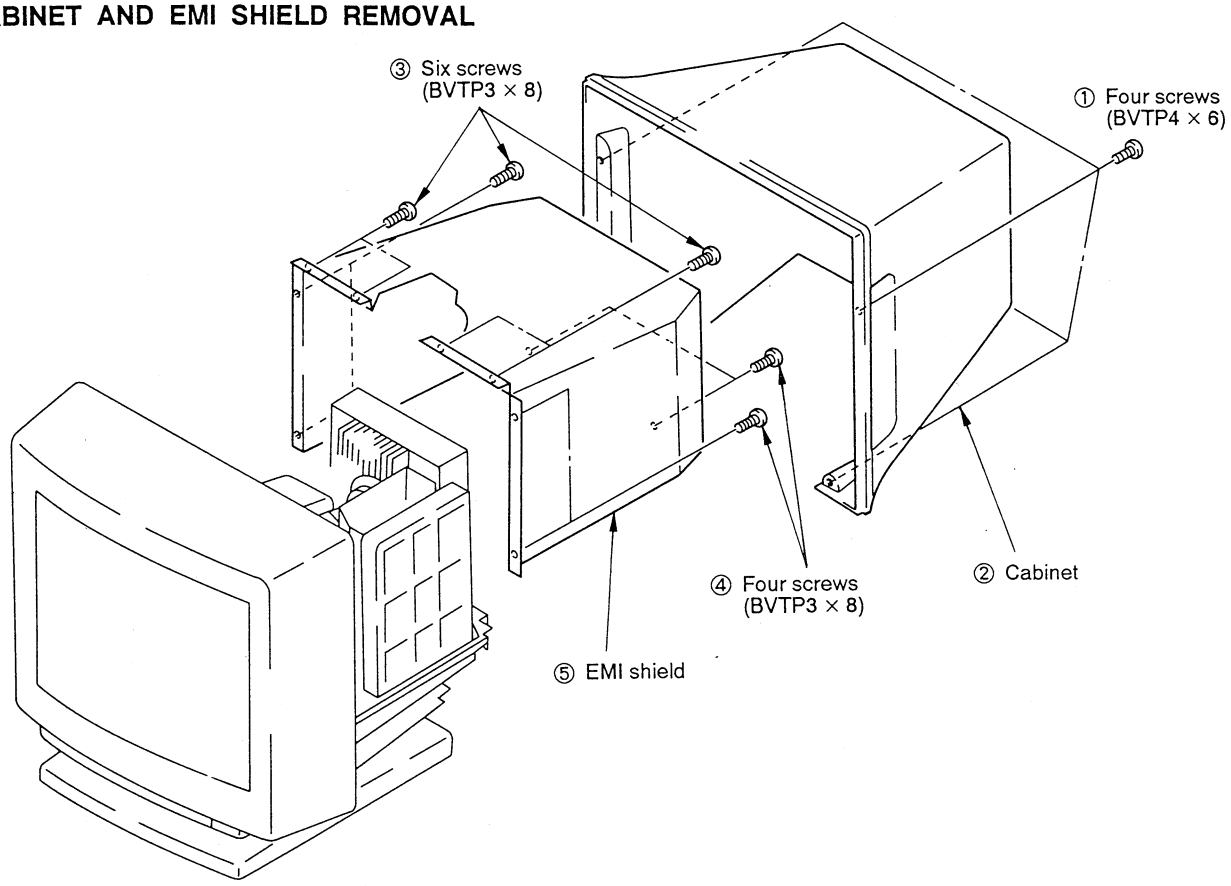
If you use a computer or video board of high output level (about 1.0 Vp-p), you may not be able to obtain the optimum display. In such case, try decreasing the picture contrast, or use a computer or video board with a lower output level.

11 **75Ω/2 kΩ selector**
Switches the impedance of the video input connector **10** termination to 75Ω or to 2 kΩ. When external sync signals are input, normally set this selector to the 75Ω position. If good synchronization cannot be obtained, set this selector to the 2 kΩ position.

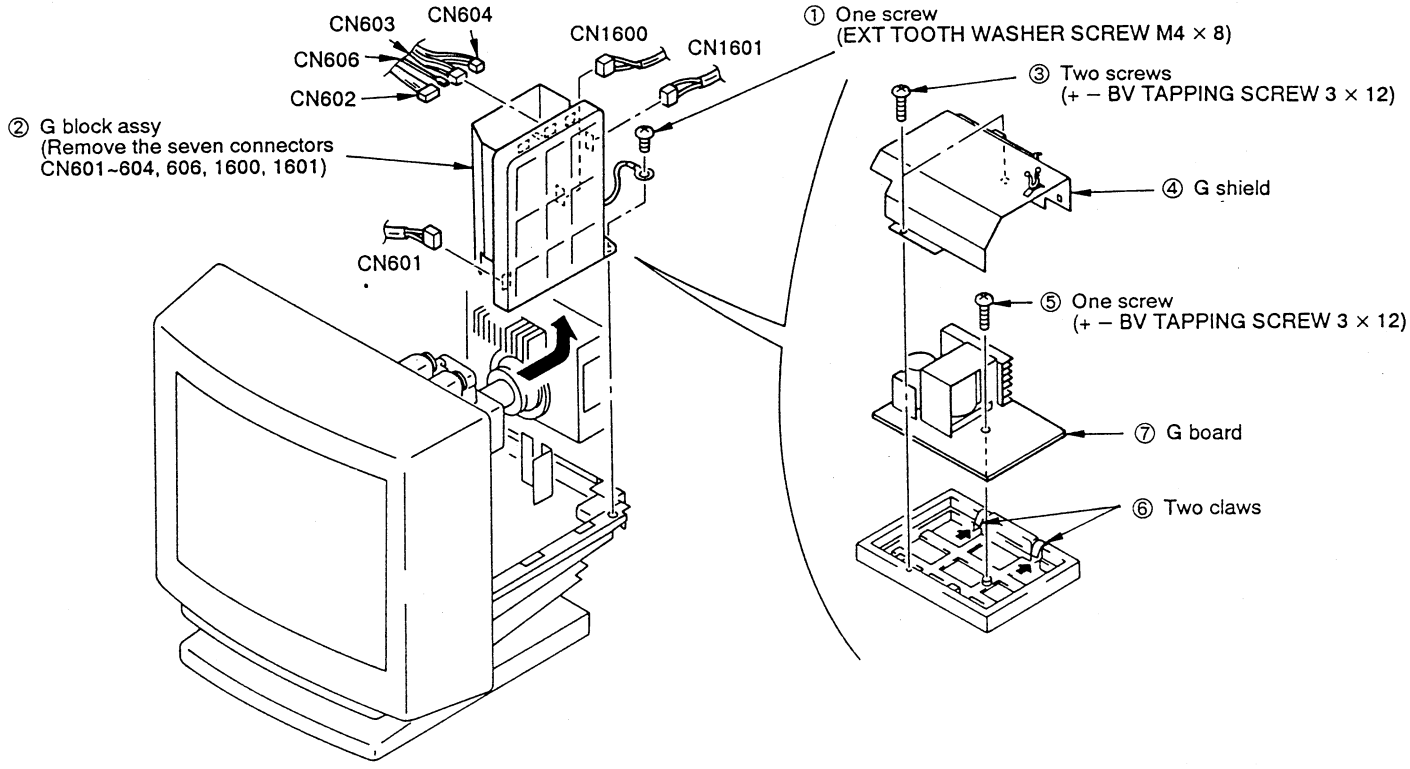
12 **SERVICE button and terminal**
The button and the terminal are to be used by service personnel only.

SECTION 1
DISASSEMBLY

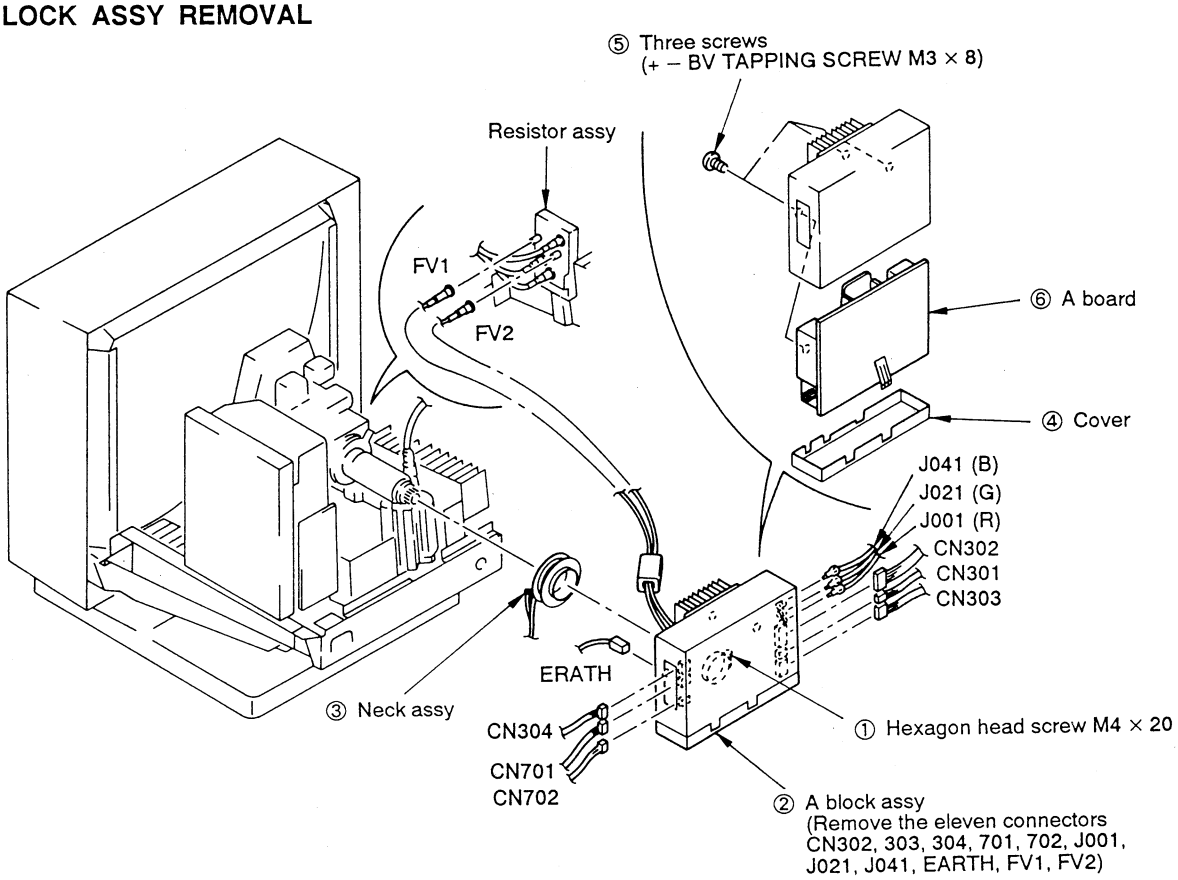
1-1. CABINET AND EMI SHIELD REMOVAL



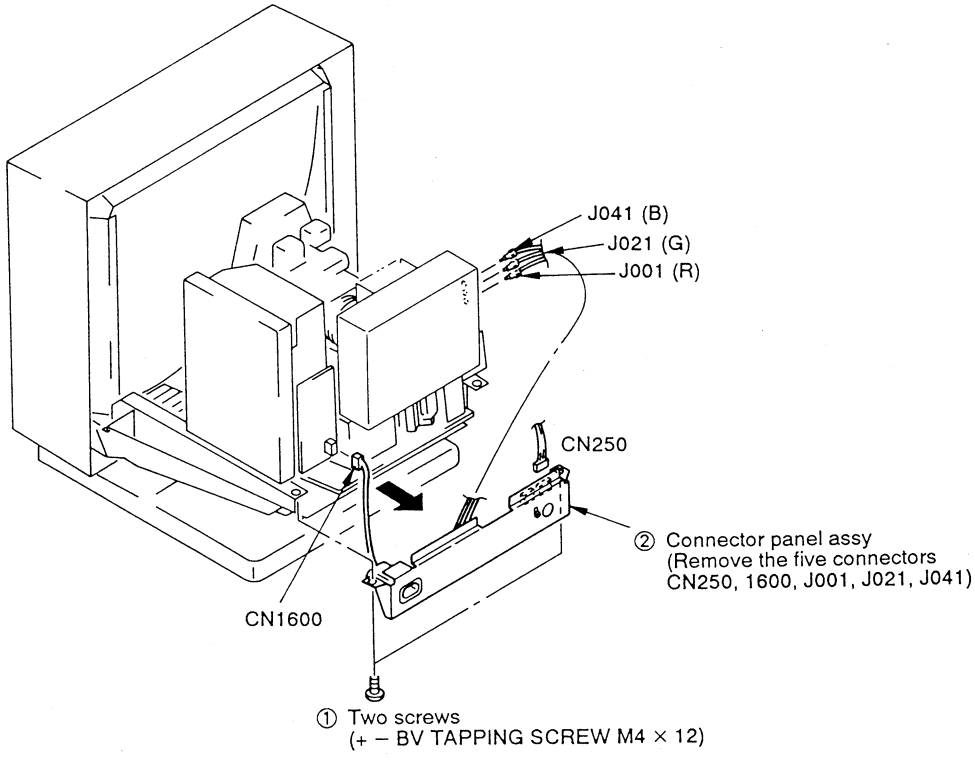
1-2. G BLOCK ASSY REMOVAL



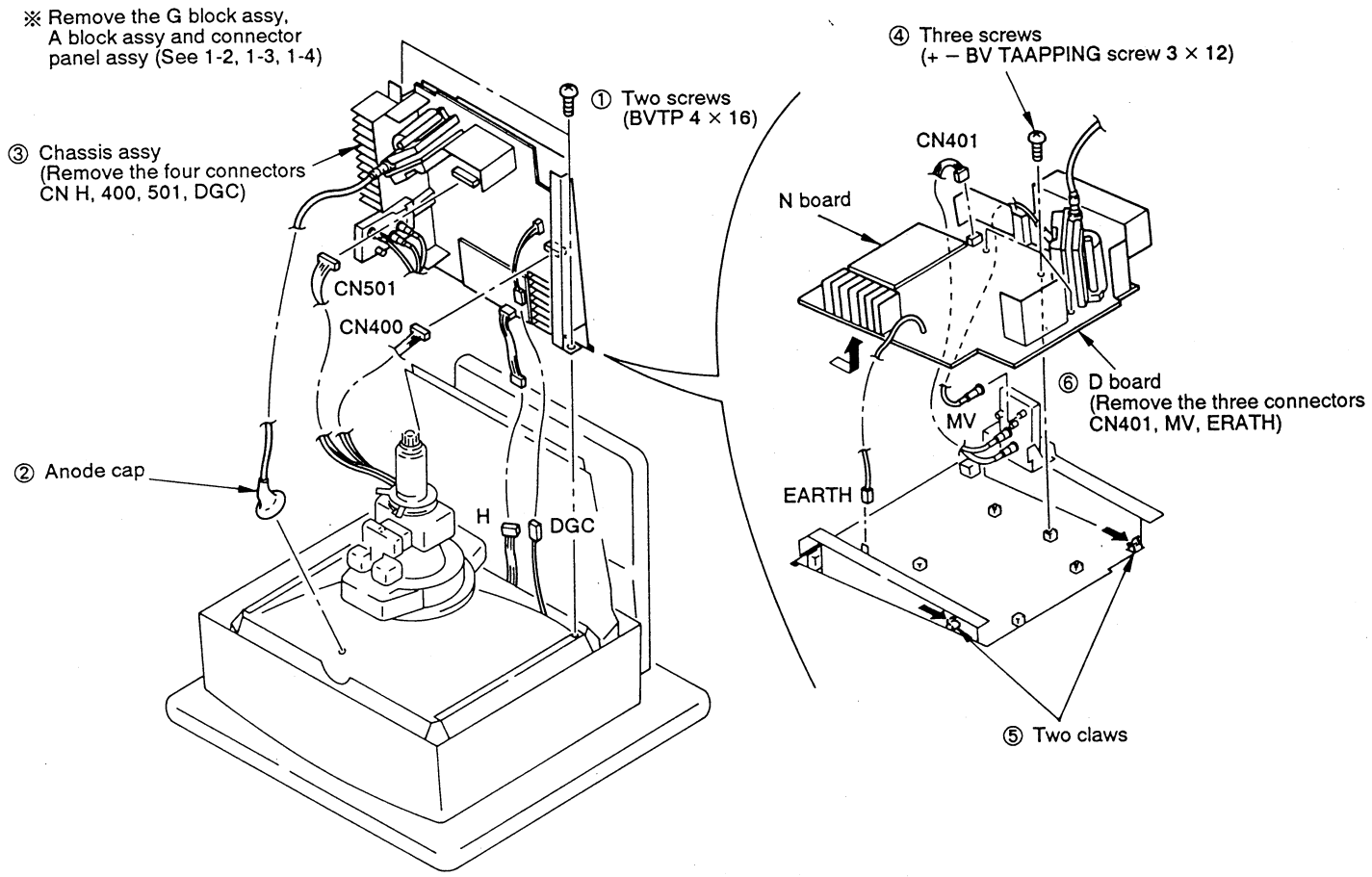
1-3. A BLOCK ASSY REMOVAL



1-4. CONNECTOR PANEL ASSY REMOVAL

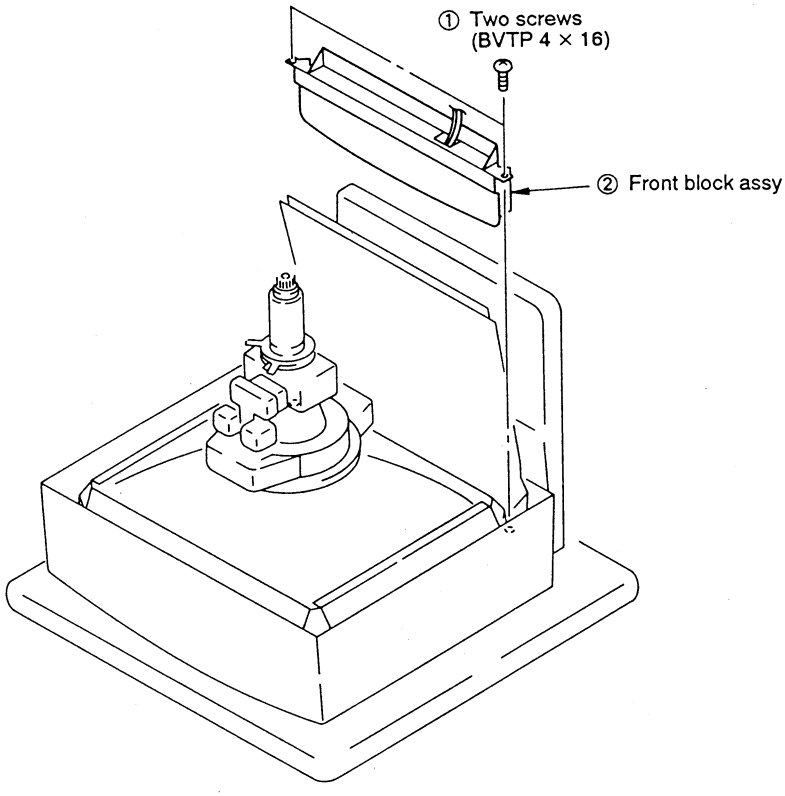


1-5. CHASSIS ASSY REMOVAL

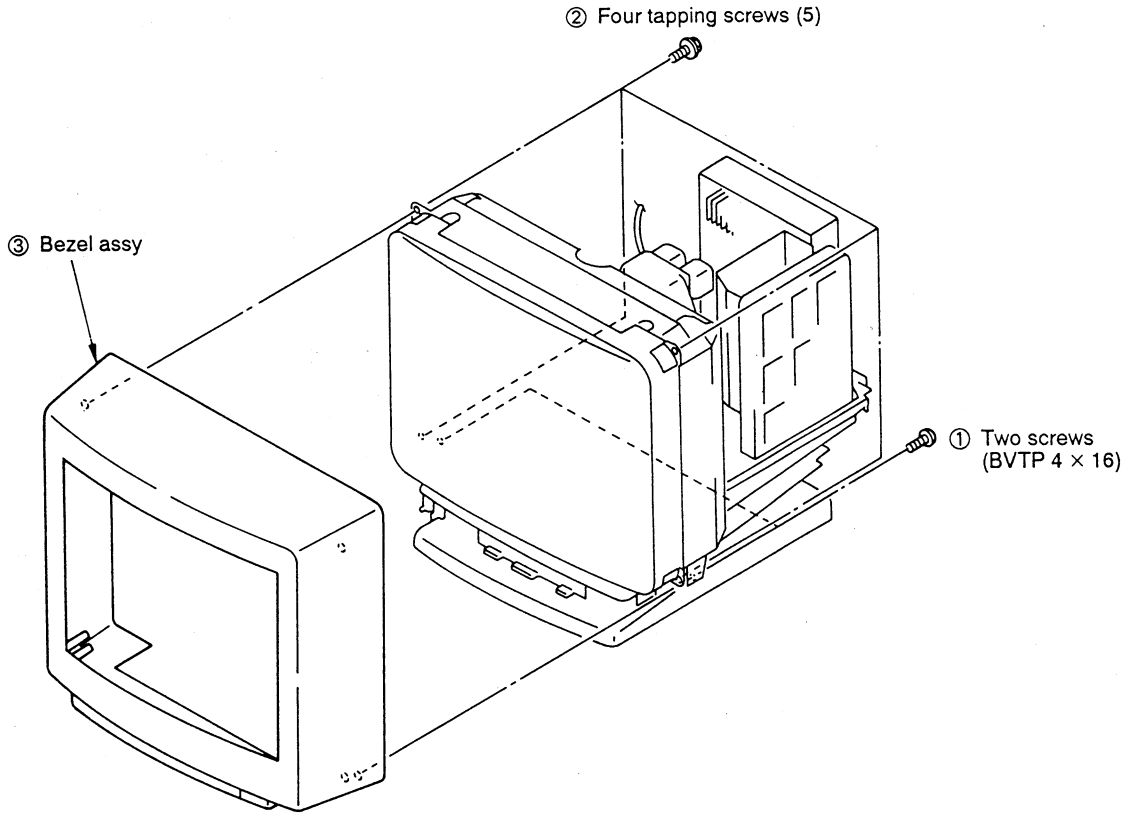

※ Remove the G block assy, A block assy and connector panel assy (See 1-2, 1-3, 1-4)
① Two screws (BVTP 4 × 16)
④ Three screws (+ – BV TAAPPING screw 3 × 12)
③ Chassis assy (Remove the four connectors CN H, 400, 501, DGC)
CN401
N board
CN501
CN400
⑥ D board (Remove the three connectors CN401, MV, ERATH)
MV
② Anode cap
EARTH
H
DGC
⑤ Two claws

1-6. FRONT BLOCK ASSY REMOVAL

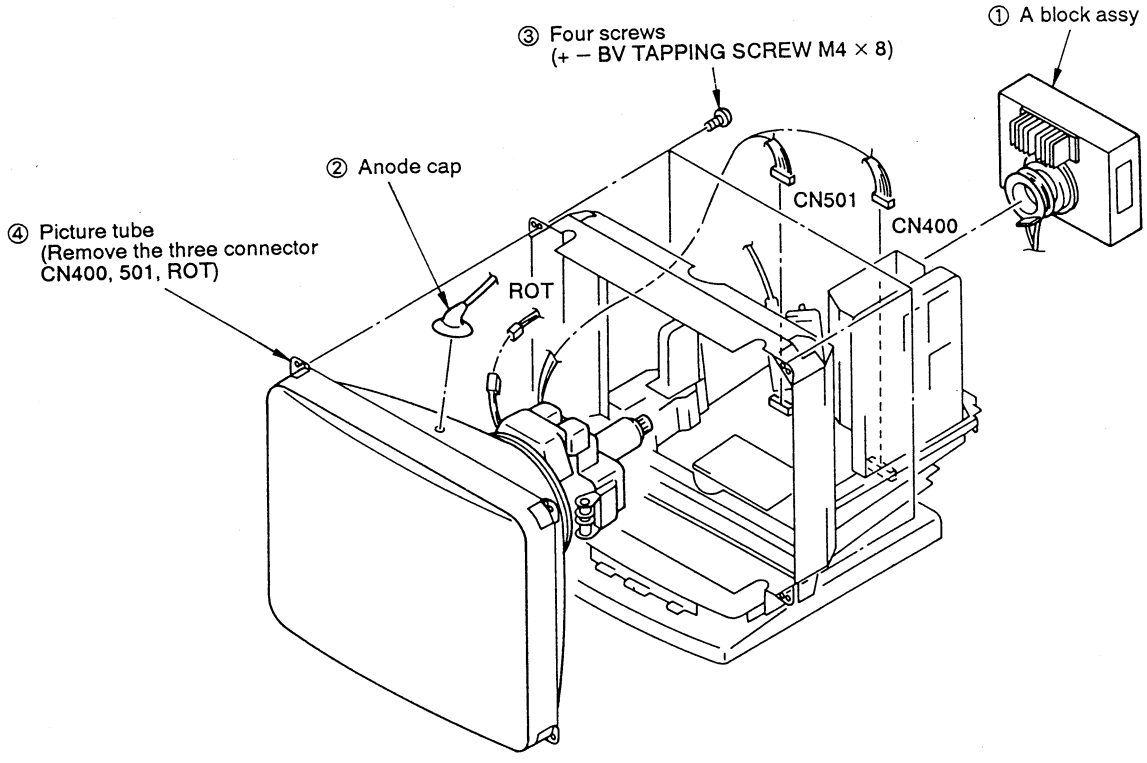
※ Remove the chassis assy (See 1-5)



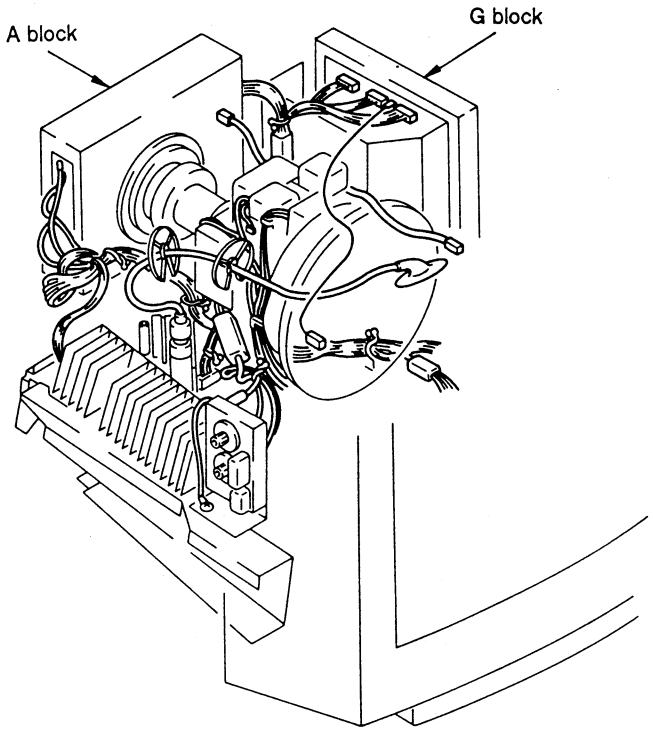
1-7. BEZEL ASSY REMOVAL



1-8. PICTURE TUBE REMOVAL



1-9. WIRING HARNESS LAYOUT



SECTION 2
SAFETY RELATED ADJUSTMENT

When replacing or repairing the shown below table, the following operational checks must be performed as a safety precaution against X-rays emissions from the unit.

HV Regulator Circuit Check	D board------ IC804, T800 • Mounted D board
HV. Hold-Down Circuit Check	D board------ IC804, R826, R832, R842, R843, T800 • Mounted D board
Beam Current Protector Circuit Check	D board------ IC804, T800 • Mounted D board
B+ Regulator Circuit Check	G board------ IC602, IC603, R630 • Mounted G board • Power Supply Block
OVP Circuit Check	G board------ D620, R631, R633, R635, Q610 • Mounted G board • Power Supply Block

a) HV Regulator Check

1) Input a white dot signal and set the contrast and bright to the minimum level.

check point
pin ② of CN801 , 9.00 $^{+0.06}_{-0.06}$ VDC

b) HV Hold-Down Check

1) Check if the raster disappears when the voltage less than 8.80 VDC is applied between pin ⑤ of CN801 and GND from the external power source.

c) Beam Protector-1 and Protector-2 Check

1) Record the initial value of ABL-SHUTDOWN, input the "255" for resistor value.
2) Reduce the resistance gradually from the maximum level using a variable resistor of more than 12 〔K-ohm〕 and an ampermeter connected in series between pin ① of CN801 and GND.
3) Check that the protector circuit operates to disappear the raster when the current level drops less than 1.36 mA.
4) Back the value of ABL-SHUTDOWN to the initial regulation value.

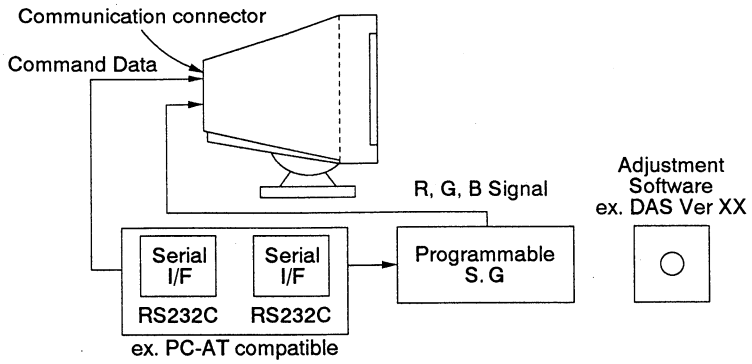
d) B+ Regulator Circuit Check

1) Input a white dot signal and set the contrast and bright to the minimum level.

check point
pin ① of CN602, 144.0 ± 3 VDC

SECTION 3
ADJUSTMENTS

Connect the communication cable of the computer (ex. PC-AT) to the connector located on the rear side of the monitor. Run the service software and then follow the instruction.



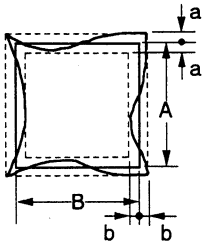
• White Balance Adjustment Specification

Adjustments Procedure	Input signal	Value of CONT, BRT	Adjust point	Specification
Color mode "H" (9300K)				
1	Glay	BRT-110 CONT-255	G2	Green become to be visible.
2	ALL Black	BRT-255 CONT-0	R. CUT MAX, G. CUT MAX, B. CUT MAX	0.283 ± 0.010, 0.298 ± 0.010 (x, y) $Y=4^{+1}_{-0.5}$ cd/m²
3	Glay	BRT-80, G. CUT MIN CONT-255 *Note 1	R. CUT MIN B. CUT MIN	0.283 ± 0.010, 0.298 ± 0.010 (x, y)
4	ALL White	BRT-80 CONT-255 *Note 2	R-DRV, B-DRV, G-DRV	0.283 ± 0.010, 0.298 ± 0.010 (x, y) Y=100 ± 1 cd/m²
5	ALL White	CONT-0 BRT-80	CONT MIN/BRT MAX CONT MIN/BRT MIN	Y=8 ± 1 cd/m²
6			Set CONT MAX/ BRT MAX to 150	
7	ALL White	CONT-255 BRT-255	CONT MAX/BRT MAX	Y= 115 ± 1 cd/m²
8	Save to color and service			
Color mode "M" (6500K)			Copy all data of mode "H"	
1	ALL Black	BRT-255 CONT-0	R. CUT MAX, G. CUT MAX, B. CUT MAX	0.313 ± 0.010, 0.329 ± 0.010 (x, y) $Y=4^{+1}_{-0.5}$ cd/m²
2	Glay	BRT-80, G. CUT MIN CONT-255 *Note 1	R. CUT MIN B. CUT MIN	0.313 ± 0.010, 0.329 ± 0.010 (x, y)
3	ALL White	BRT-80 CONT-255 *Note 3	R-DRV, G-DRV, B-DRV	0.313 ± 0.010, 0.329 ± 0.010 (x, y) Y=85 ± 1 cd/m²
4	ALL White	CONT-0 BRT-80	CONT MIN/BRT MAX CONT MIN/BRT MIN	Y=8 ± 1 cd/m²
5			Set CONT MAX/ BRT MAX to 150	
6	ALL White	CONT-255 BRT-255	CONT MAX/BRT MAX	Y=100 ± 1 cd/m²
Color mode "L" (5000K)			Copy all data of mode "M"	
1	ALL Black	BRT-255 CONT-0	R. CUT MAX, G. CUT MAX, B. CUT MAX	0.345 ± 0.010, 0.358 ± 0.010 (x, y) $Y=4^{+1}_{-0.5}$ cd/m²
2	Glay	BRT-80, G. CUT MIN CONT-255 *Note 1	R. CUT MIN B. CUT MIN	0.345 ± 0.010, 0.358 ± 0.010 (x, y)
3	ALL White	BRT-80 CONT-255 *Note 2	R-DRV, G-DRV, B-DRV	0.345 ± 0.010, 0.358 ± 0.010 (x, y) Y=75 ± 1 cd/m²
4	ALL White	CONT-0 BRT-80	CONT MIN/BRT MAX CONT MIN/BRT MIN	Y=8 ± 1 cd/m²
5			Set CONT MAX/ BRT MAX to 150	
6	ALL White	CONT-255 BRT-255	CONT MAX/BRT MAX	Y=90 ± 1 cd/m²

*Note 1 : $\dfrac{110 \times 255 - 80 \times [\text{G. CUT MAX Value}]}{175}$

*Note 2 : Return to 3 for tracking. *Note 3 : Return to 2 for tracking.

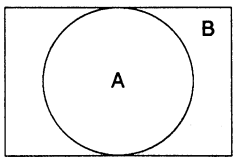
• Vertical and Horizontal Position and Size Specification



a < 2.8 mm
b < 2.8 mm

mode	A	B
16 × 12 16 × 10	360	270
20 × 16	350	280

• Convergence Specification



A ≦ 0.30 mm
B ≦ 0.40 mm

• Geometric Adjustment Methods (All BUS cont)

1. V-CENT ADJ
2. V-SIZE ADJ
3. V-KEY ADJ
4. V-LIN BALANCE ADJ
5. V-LIN ADJ
6. H-CENT ADJ
7. H-POSI ADJ
8. H-SIZE ADJ
9. KEY BALANCE ADJ
10. KEY ADJ
11. SIDE PIN BALANCE ADJ
12. PIN AMP ADJ
13. S-LINE ADJ
14. SEXY-LINE ADJ

1. CONVERGENCE ROUGH ADJUSTMENT

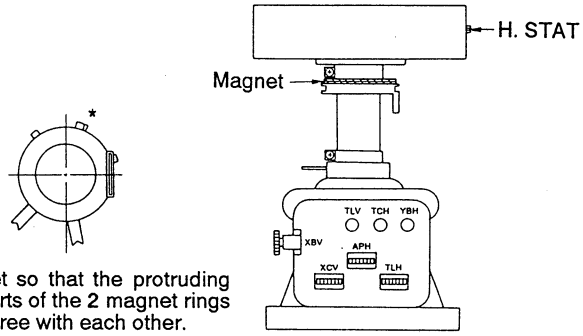
(1) Receive an image of the white crosshatch signals.
(2) Place the protrusions of the 6-fold poles magnet attached to the CRT neck upon each other (See figure).
(3) Make rough adjustment of the H direction convergence by using H. STAT VR (right side of the video case).
(4) Make a rough adjustment of the V direction convergence by using "V. STAT".

2. CONVERGENCE FINE ADJUSTMENT

(1) Input white crosshatch signals (white lines on black) in the prime mode.
Adjust the screen size to 360 × 280.

(2) Confirm that the values of "H. CONV" and "V. CONV" are "0" (center).
(3) Turn the magnet ring (6-fold poles) behind DY and correct to zero. (See figure.)
(4) Turn the H. STAT VR and set the parallel lines of the 3 colors R, G and B (vertical lines). Set the parallel lines of the 3 colors R, G and B with "V. CONV" (horizontal lines).
(5) Turn the magnet ring (6-fold poles) behind the neck assembly and adjust so that the R-G distance of the parallel lines of the 3 colors and the B-G distance become identical (See figure 2).
(6) Return the value of H. STAT VR and "V. CONV" used in (3) and set the misconvergence of the center of the screen to zero.

(7) Fine adjustment ot convergence
a) Set "V. CONV TOP" and "V. CONV BOT" to zero.
b) Turn the XBV reactor and adjust the XBV misconvergence.
(The reactor on the far left side of the upper circuit board when seen from the CRT side.)
c) Turn the XCV reactor and adjust the XCV misconvergence.
(The reactor on the near left side of the upper circuit board when seen from the side.)
Note: When adjusting XBV, the "V. CONV" shall be reajusted.
When XCV exceeds the adjustment range, oscillate the upper and lower parts of DY and adjust.
d) Turn the APH reactor and adjust th H. AMP misconvergence.
(The near center reactor of the upper circuit board when see from the CRT tube side.)



* Set so that the protruding parts of the 2 magnet rings agree with each other.

e) Turn the TLH reactor and adjust the H. TILT misconvergence.
(The near right side reactor of the upper circuit board when seen from the CRT tube side.)
(Note: Readjust H. STAT VR too.)
f) Adjust the YBH misconvergence with the VR YBH on the DY.
(The far right side VR when seen from the CRT tube side.)
g) Adjust the YCH misconvergence with the VR YCH on DY.
(The far center VR when seen from the CRT tube side.)
h) Adjust "V. CONV BOT".
i) Adjust "V. CONV TOP".
j) Adjust the upper and lower TLV with VR TLV on DY as necessity required.
(The far left side VR when seen from the CRT tube side.)
(Note: When the horizontal trapezoid does not agree with the specification, carry out left and right oscillation and tracking of DY.)
k) Confirm the convergence of the whole screen, and carry out H. STAT correction and the operations of c) – k), and Permalloy correction.
l) Confirm the convergence of the whole screen.
m) Switch the mode between the prime mode and the convergence check mode (see table on P. 41-2), and confirm the convergence in each mode after having carried out fine adjustment with H. STAT and V. STAT on the front panel.
n) Fix the 2 places of the XBV, XCV, APH and TCH reactors and the 6-fold poles with a white pen.
o) Fix the DV spacer (large) and the Permalloy with RTV.

SECTION 4
TROUBLESHOOTING

This diagnostic troubleshooting guide uses the monitor symptom as a clue for selecting a repair procedure. Select the listed symptom closest to that of your monitor and follow the procedure given for that symptom in this troubleshooting guide. If the same trouble recurs even after you have changed a block or part, re-install the original block or part, then proceed to the next step.

Symptoms	Repair Procedure
• No Power	1. Check whether the internal power supply connector is connected. 2. Inspect the power supply fuse. → If it has blown, change it. If it blows again, proceed to the next step. 3. Change the Power block. 4. Change the D board block.
• Sametime shutdown after work while	1. Check the hold down voltage. 2. Change the hight voltage capacitor. C805 3. Change the D board block.
• Abnormal coil demagnetization	1. Change the Power block.
• No Picture	1. Adjust the CONTRAST control. 2. Confirm the input signal. 3. Confirm connector between power block and D board. 4. Inspect the power supply fuse. → If it has blown, change it. If it blows again, proceed to the next step. 5. Change the Power block. 6. Change the D board block. 7. Change the A board. 8. Change the U board. 9. Change the CRT.
• Display area too small/large/short/tall/ narrow/wide	1. Adjust the horizontal or vertical size. 2. Change the D board block.
• Horizontal distortion	1. Re-adjust using the service software. 2. Change the D board block.
• Vertical distortion	1. Re-adjust using the service software. 2. Change the D board block.
• Picture tilted	1. Make the tilt adjustment.
• Picture flickers	1. Check the fastening of the ground line. 2. Check the grounding of the connected computer. 3. Change the D board Block.
• Brightness can not be adjusted	1. Change the A board. 2. Change the H board.
• Contrast can not be adjusted	1. Change the A board. 2. Change the H board.
• Picture too bright/dark	1. Adjust the BRIGHTNESS control. 2. Adjust the white balance. 3. Adjust the CONTRAST and BRIGHT controls. 4. Change the A board. 5. Change the Power block. 6. Change the CRT.

For picture size, pictuer distortion, and other specifications, place the ball chart on the set and check and adjust.

m as a clue for selecting a repair procedure. Select the listed
re given for that symptom in this troubleshooting guide. If the
e-install the original block or part, then proceed to the next step.

cedure

ıer the internal power supply connector is connected.
ower supply fuse.
olown, change it. If it blows again, proceed to the next step.
Power block.
D board block.

old down voltage.
ight voltage capacitor. C805
D board block.

Power block.

ONTRAST control.
input signal.
nector between power block and D board.
ower supply fuse.
olown, change it. If it blows again, proceed to the next step.
Power block.
D board block.
A board.
J board.
CRT.

orizontal or vertical size.
D board block.

ng the service software.
D board block.

ng the service software.
D board block.

adjustment.

stening of the ground line.
ounding of the connected computer.
D board Block.

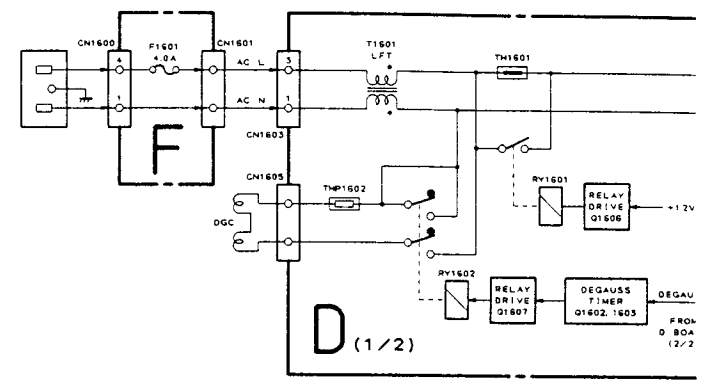
board.
board.

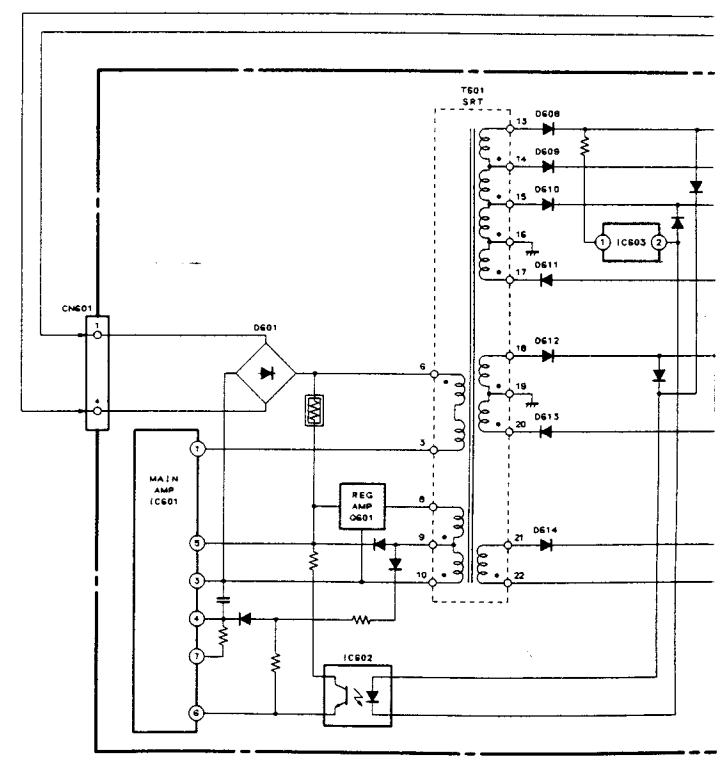
board.
board.

RIGHTNESS control.
hite balance.
ONTRAST and BRIGHT controls.
board.
ower block.
RT.

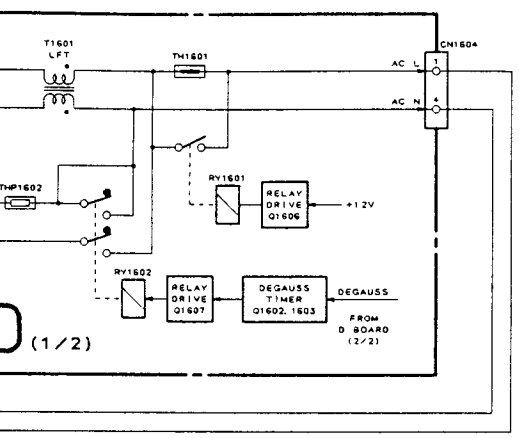
he ball chart on the set and check and adjust.

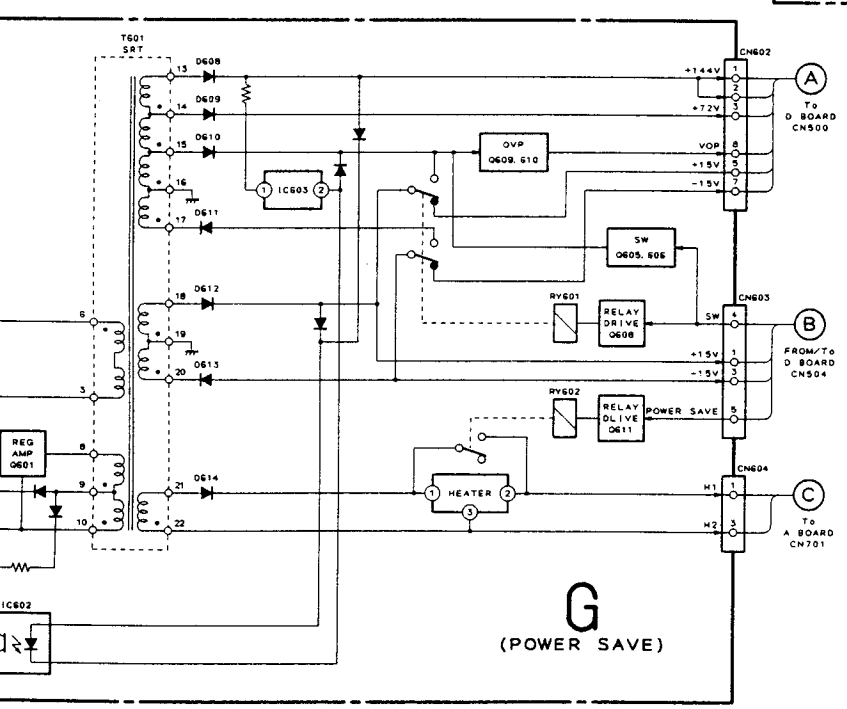
5-1. BLOCK DIAGRAMS

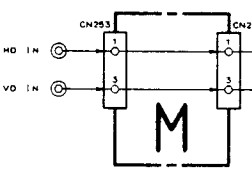


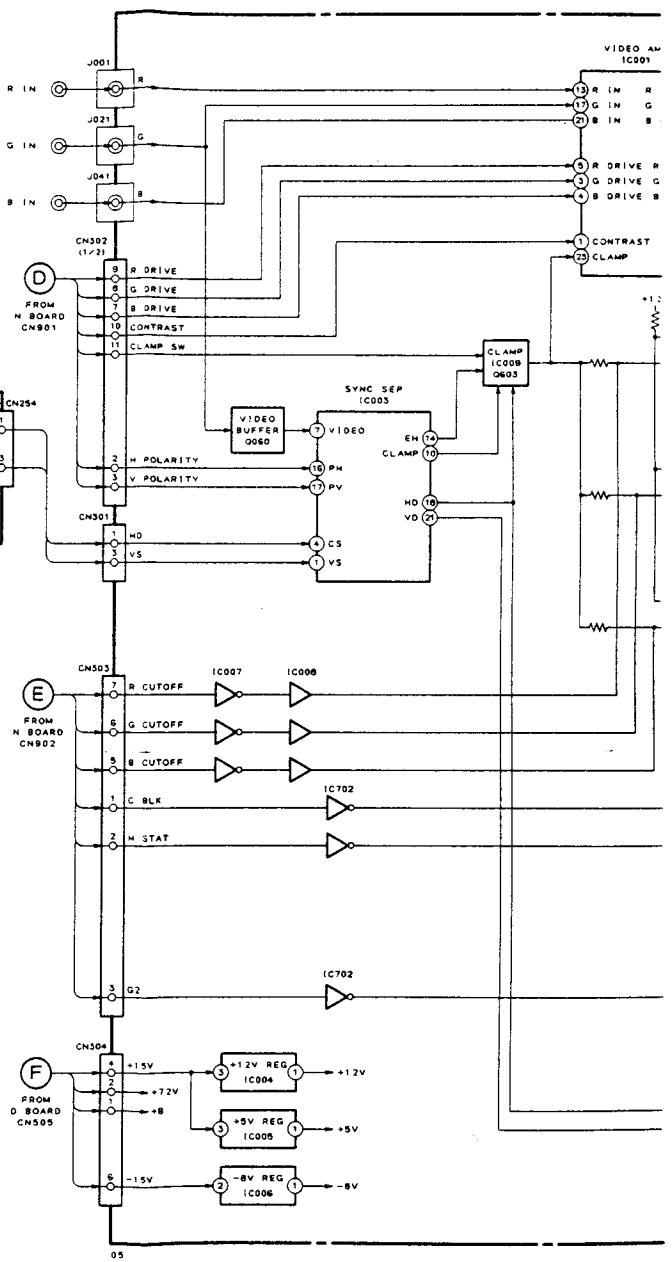


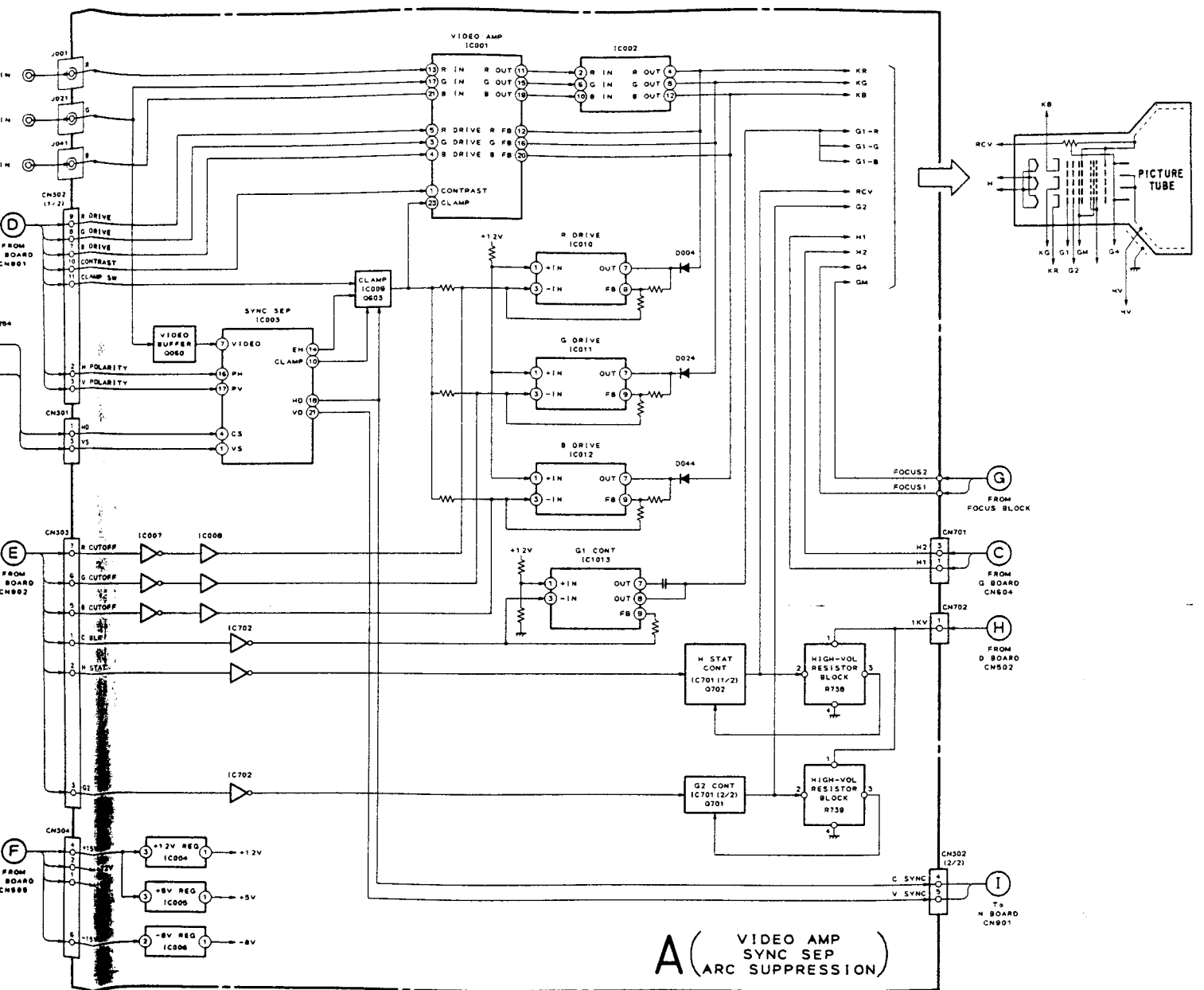
SECTION 5
DIAGRAMS

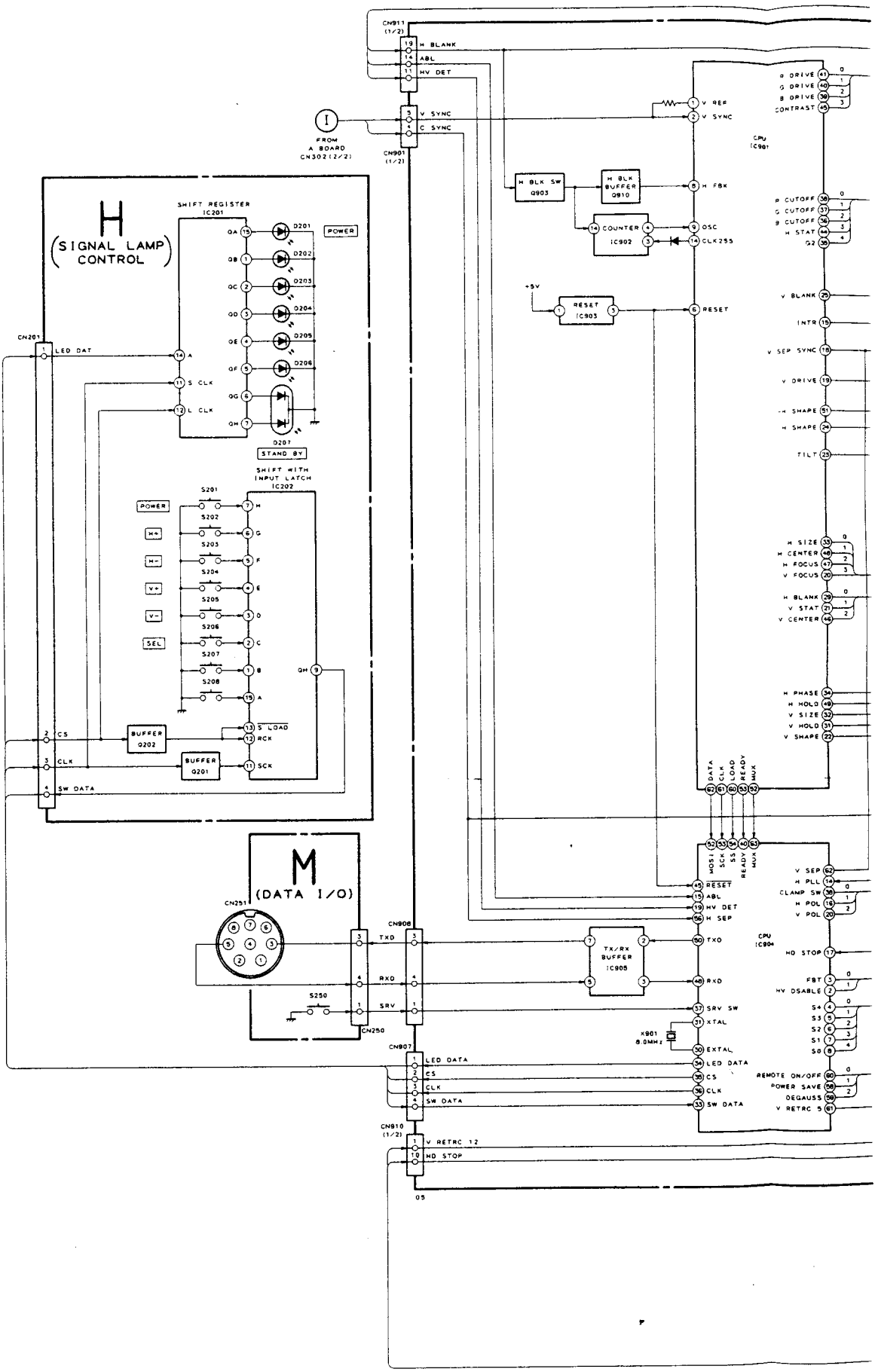


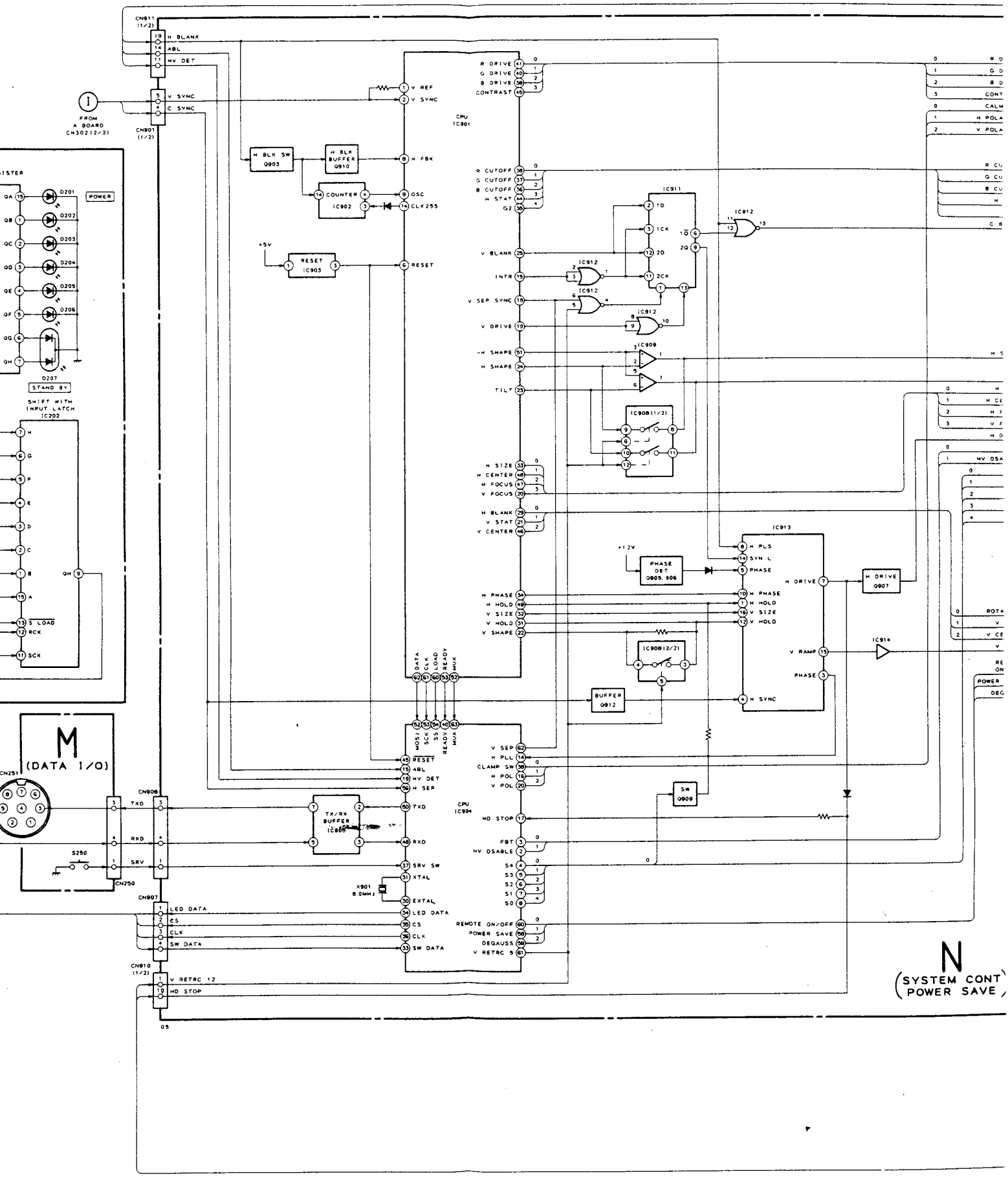


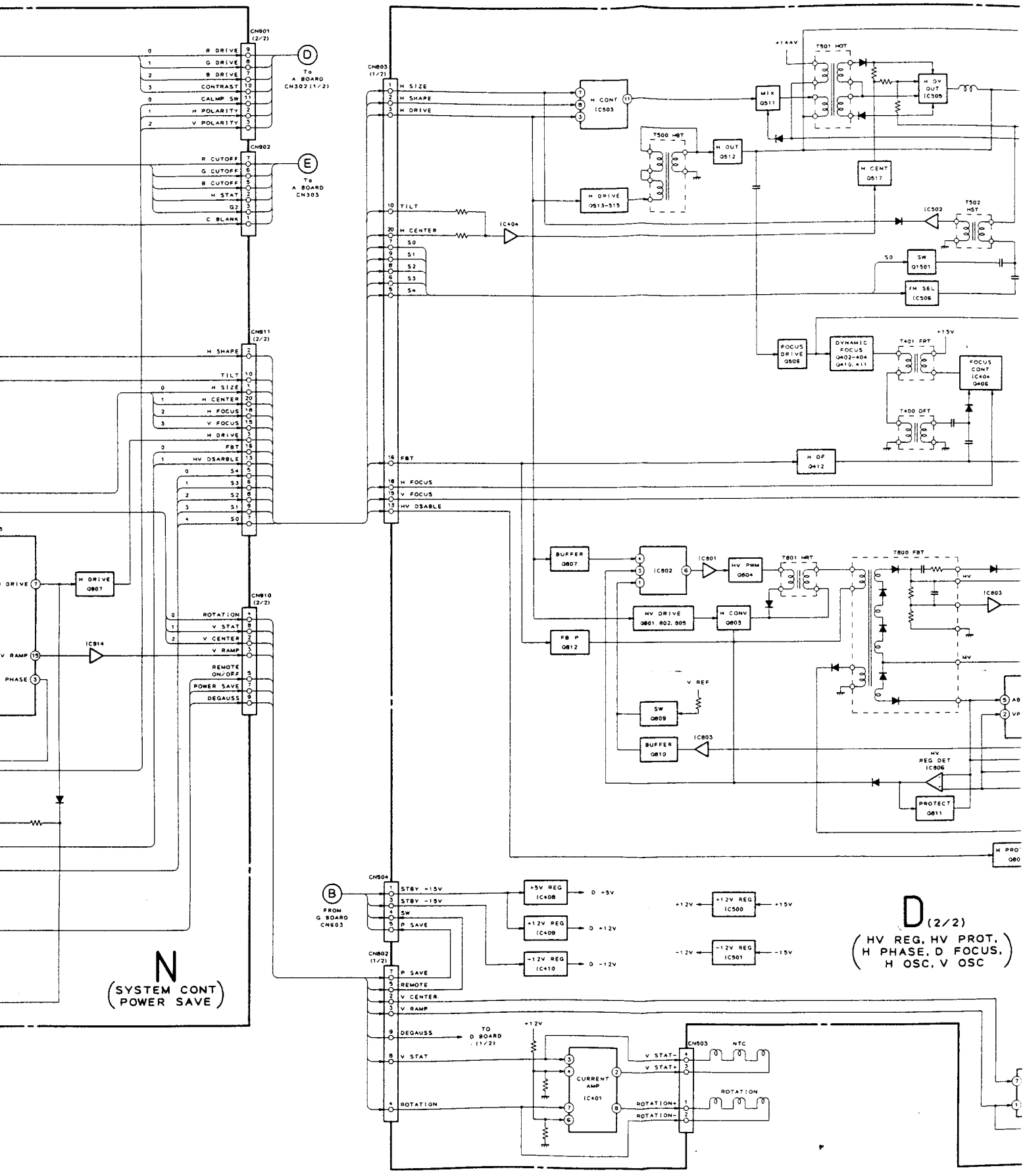





VIDEO AMP
IC001
IC002
R IN
G IN
B IN
R OUT
G OUT
B OUT
KR
KG
KB
R DRIVE
G DRIVE
B DRIVE
CONTRAST
CLAMP
G1-R
G1-G
G1-B
RCV
G2
H1
H2
G4
GM
PICTURE TUBE
R DRIVE IC010
G DRIVE IC011
B DRIVE IC012
+12V
D004
D024
D044
CLAMP IC008 Q603
VIDEO BUFFER Q060
SYNC SEP IC003
VIDEO
H POLARITY
V POLARITY
CS
VS
HD
VD
EH
CLAMP
R CUTOFF
G CUTOFF
B CUTOFF
IC007
IC008
IC702
G1 CONT IC1013
H STAT CONT (IC701 (1/2) Q702
G2 CONT IC701 (2/2) Q701
HIGH-VOL RESISTOR BLOCK R738
HIGH-VOL RESISTOR BLOCK R739
FOCUS2
FOCUS1
FROM FOCUS BLOCK
1KV
FROM G BOARD CN604
FROM D BOARD CN502
C SYNC
V SYNC
TO N BOARD CN901
+12V REG IC004
+8V REG IC005
-8V REG IC006
FROM BOARD CN901
FROM BOARD CN902
FROM BOARD CN903
CN301
CN302 (1/2)
CN303
CN304
CN701
CN702
CN302 (2/2)
A VIDEO AMP SYNC SEP ARC SUPPRESSION


H
(SIGNAL LAMP CONTROL)
SHIFT REGISTER IC201
SHIFT WITH INPUT LATCH IC202
M
(DATA I/O)
CPU IC901
CPU IC904
TX/RX BUFFER IC905
RESET IC903
COUNTER IC902
H BLK SW Q903
H BLK BUFFER Q910
BUFFER Q201
BUFFER Q202
POWER
STAND BY
FROM A BOARD CN302 (2/2)
CN201
CN250
CN251
CN901 (1/2)
CN906
CN907
CN910 (1/2)
CN911 (1/2)
X901 8.0MHz
H BLANK
ABL
HV DET
V SYNC
C SYNC
LED DAT
S CLK
L CLK
CS
CLK
SW DATA
S LOAD
RCK
SCK
TXD
RXD
SRV
LED DATA
V RETRC 1-2
HD STOP
H FBK
OSC
CLK255
RESET
V REF
R DRIVE
G DRIVE
B DRIVE
CONTRAST
R CUTOFF
G CUTOFF
B CUTOFF
H STAT
V BLANK
INTR
V SEP SYNC
V DRIVE
H SHAPE
TILT
H SIZE
H CENTER
H FOCUS
V FOCUS
V STAT
V CENTER
H PHASE
H HOLD
V SIZE
V HOLD
V SHAPE
H PLL
CLAMP SW
H POL
V POL
FBT
HV DSABLE
REMOTE ON/OFF
POWER SAVE
DEGAUSS
V RETRC 5
SRV SW
XTAL
EXTAL


CN911 (1/2)
H BLANK
ABL
HV DET
V SYNC
C SYNC
CN801 (1/2)
FROM A BOARD CN302 (2/2)
V REF
V SYNC
H BLK SW Q903
H BLK BUFFER Q910
COUNTER IC902
H FBK
OSC
CLK255
+5V
RESET IC903
RESET
CPU IC901
R DRIVE
G DRIVE
B DRIVE
CONTRAST
R CUTOFF
G CUTOFF
B CUTOFF
H STAT
G2
V BLANK
INTR
V SEP SYNC
V DRIVE
H SHAPE
V SHAPE
TILT
H SIZE
H CENTER
H FOCUS
V FOCUS
H BLANK
V STAT
V CENTER
H PHASE
H HOLD
V SIZE
V HOLD
V SHAPE
IC911
IC912
IC909
IC908 (1/2)
IC908 (2/2)
IC913
H PLS
SYN L
PHASE
H DRIVE
V RAMP
H SYNC
PHASE DET Q905, 906
+12V
H DRIVE Q907
IC914
BUFFER Q912
DATA
CLK
LOAD
READY
MUX
MOSI
SCK
SS
READY
MUX
RESET
ABL
HV DET
H SEP
V SEP
H PLL
CLAMP SW
H POL
V POL
HD STOP
FBT
HV DSABLE
S4
S3
S2
S1
S0
REMOTE ON/OFF
POWER SAVE
DEGAUSS
V RETRC 5
SW Q909
CPU IC904
TX/RX BUFFER IC905
TXD
RXD
SRV SW
XTAL
EXTAL
LED DATA
CS
CLK
SW DATA
X901 8.0MHz
CN907
CN908
CN910 (1/2)
CN250
CN251
S250
V RETRC 12
HD STOP
05
M
(DATA I/O)
N
(SYSTEM CONT
POWER SAVE
POWER
STAND BY
D201
D202
D203
D204
D205
D206
D207
SHIFT WITH INPUT LATCH IC202
S LOAD
RCK
SCK
QH


CN901 (2/2)
R DRIVE
G DRIVE
B DRIVE
CONTRAST
CALMP SW
H POLARITY
V POLARITY
To A BOARD CN302 (1/2)
CN902
R CUTOFF
G CUTOFF
B CUTOFF
H STAT
G2
C BLANK
To A BOARD CN303
CN811 (2/2)
H SHAPE
TILT
H SIZE
H CENTER
H FOCUS
V FOCUS
H DRIVE
FBT
HV DSABLE
S4
S3
S2
S1
S0
CN810 (2/2)
ROTATION
V STAT
V CENTER
V RAMP
REMOTE ON/OFF
POWER SAVE
DEGAUSS
H DRIVE Q807
IC814
N
(SYSTEM CONT
POWER SAVE)
CN803 (1/2)
H SIZE
H SHAPE
H DRIVE
TILT
H CENTER
S0
S1
S2
S3
S4
FBT
H FOCUS
V FOCUS
HV DSABLE
H CONT IC503
H DRIVE Q513-515
IC404
+144V
T501 HOT
MIX Q511
H OUT Q512
T500 HBT
H CENT Q517
H OV OUT IC505
IC502
T502 HST
SW Q1501
FM SEL IC506
FOCUS DRIVE Q506
DYNAMIC FOCUS Q402-404 Q410, 411
T401 FBT
+15V
FOCUS CONT IC404 Q406
T400 DFT
H OF Q412
BUFFER Q807
IC802
IC801
HV PWM Q804
T801 HRT
T800 FBT
HV DRIVE Q801, 802, 805
H CONV Q803
FB P Q812
IC803
V REF
SW Q809
BUFFER Q810
HV REG DET IC806
PROTECT Q811
CN504
STBY +15V
STBY -15V
SW
P SAVE
FROM G BOARD CN603
+5V REG IC408
+12V REG IC409
-12V REG IC410
D +5V
D +12V
D -12V
+12V REG IC500
-12V REG IC501
+12V
-15V
D (2/2)
(HV REG, HV PROT, H PHASE, D FOCUS, H OSC, V OSC
CN802 (1/2)
P SAVE
REMOTE
V CENTER
V RAMP
DEGAUSS
TO D BOARD (1/2)
V STAT
ROTATION
CURRENT AMP IC401
CN503
NTC
V STAT-
V STAT+
ROTATION
ROTATION+
ROTATION-

POWER SAVING FUNCTION

The unit supports the computers corresponding to the "Power Saving Function".

Power saving operation

- The H sync or V sync is not present.

  ↓

  The unit goes into suspend mode.

- Both the H sync and V sync are not present.

  ↓

  The unit goes into active-off mode.

Note

As this unit has the Power Saving Function, if you turn on the unit with no signal input, the unit goes into Power Saving mode and waits for an input signal.

CAUTION

Turn power off and disconnect the power cord when you will disassemble the unit since.

TIMING SPECIFICATION

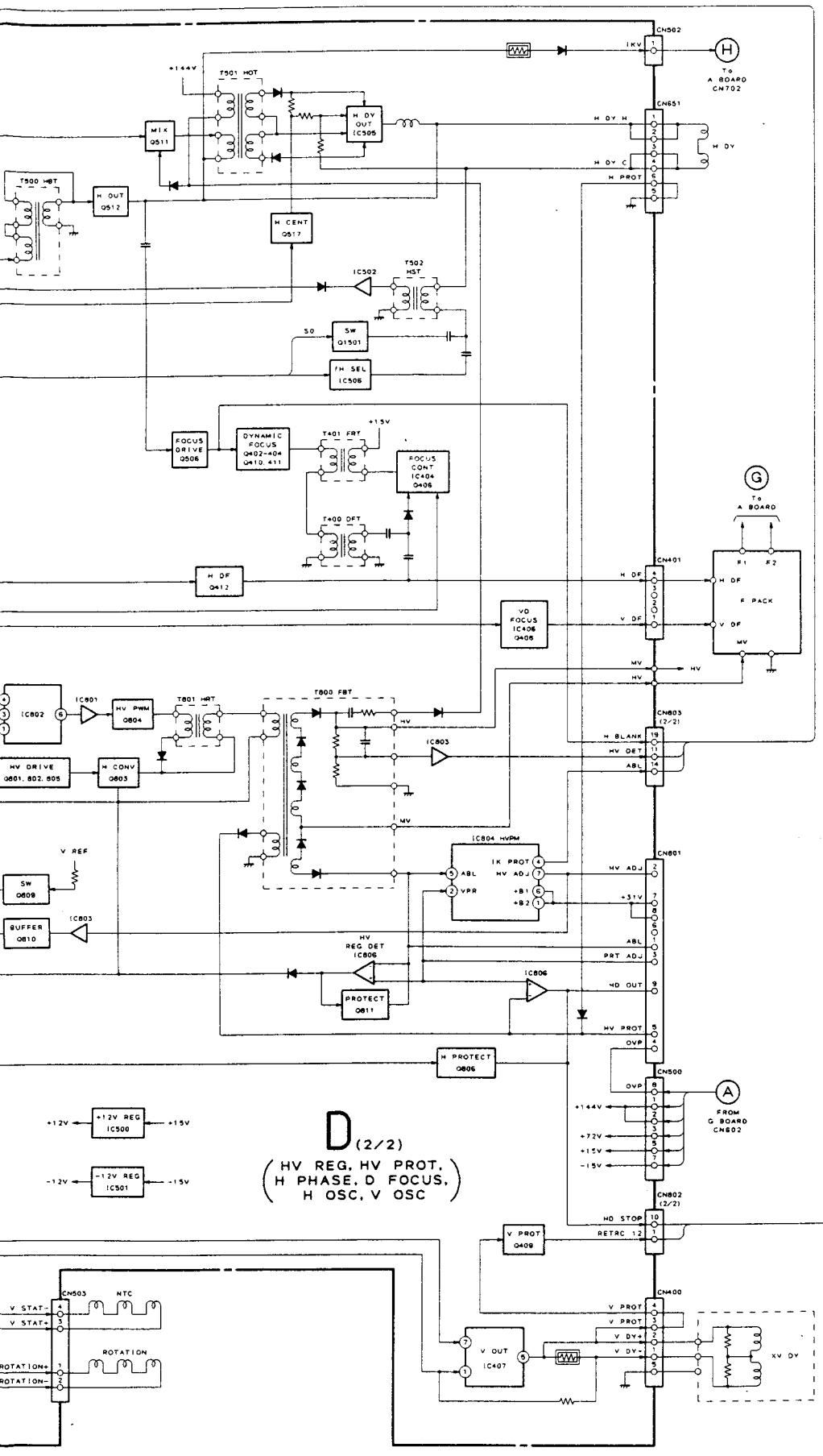
Mode	1	2	3	4	5	6	7	8	9
Resolution (H x V)	640 x 480	720 x 400	800 x 600	832 x 624	1024 x 768	1024 x 768	1152 x 870	1280 x 1024	1280 x 1024
Dot Clock (MHz)	25.175	28.322	50.000	57.285	75.000	80.000	100.000	110.000	135.000
Horizontal									
Hor. freq. (kHz)	31.469	31.469	48.077	49.727	56.476	60.241	68.681	63.953	78.855
H-total	31.778	31.777	20.800	20,110	17.707	16.600	14.560	15.636	12.681
H-blanking	6.356	6.355	4.800	5.586	4.053	3.800	3.040	4.000	3.200
H-Front porch	0.636	0.636	1.120	0.559	0.320	0.550	0.320	0.727	0.237
H-Sync. width	3.813	3.813	2.400	1.117	1.813	1.200	1.280	1.018	1.067
H-Back porch	1.907	1.907	1.280	3.910	1.920	2.050	1.440	2.255	1.896
H-Active	25.422	25.422	16.000	14.524	13.653	12.800	11.520	11.636	9.481
(μsec)									
Vertical									
Ver. freq. (Hz)	59.940	70.087	72.188	74.553	70.069	74.927	75.062	59.938	74.112
V-total	525	449	666	667	806	804	915	1067	1064
V-blanking	45	49	66	43	38	36	45	43	40
V-Front porch	10	12	37	3	3	3	3	1	0
V-Sync. width	2	2	6	3	6	3	3	5	30
V-Back porch	33	35	23	37	29	30	39	37	10
V-Active	480	400	600	624	768	768	870	1024	1024
(Lines)									
Sync.	External	External	External	Internal	External	Internal	Internal	External	External
H-Polarity	(−)	(−)	(+)	N.A	(−)	N.A	N.A	(−)	(+)
V-Polarity	(−)	(+)	(+)	N.A	(−)	N.A	N.A	(−)	(+)
Scanning mode	Non-interlace	Non-interlace	Non-interlace	Non-interlace	Non-interlace	Non-interlace	Non-interlace	Non-interlace	Non-interlace

WARNING!!

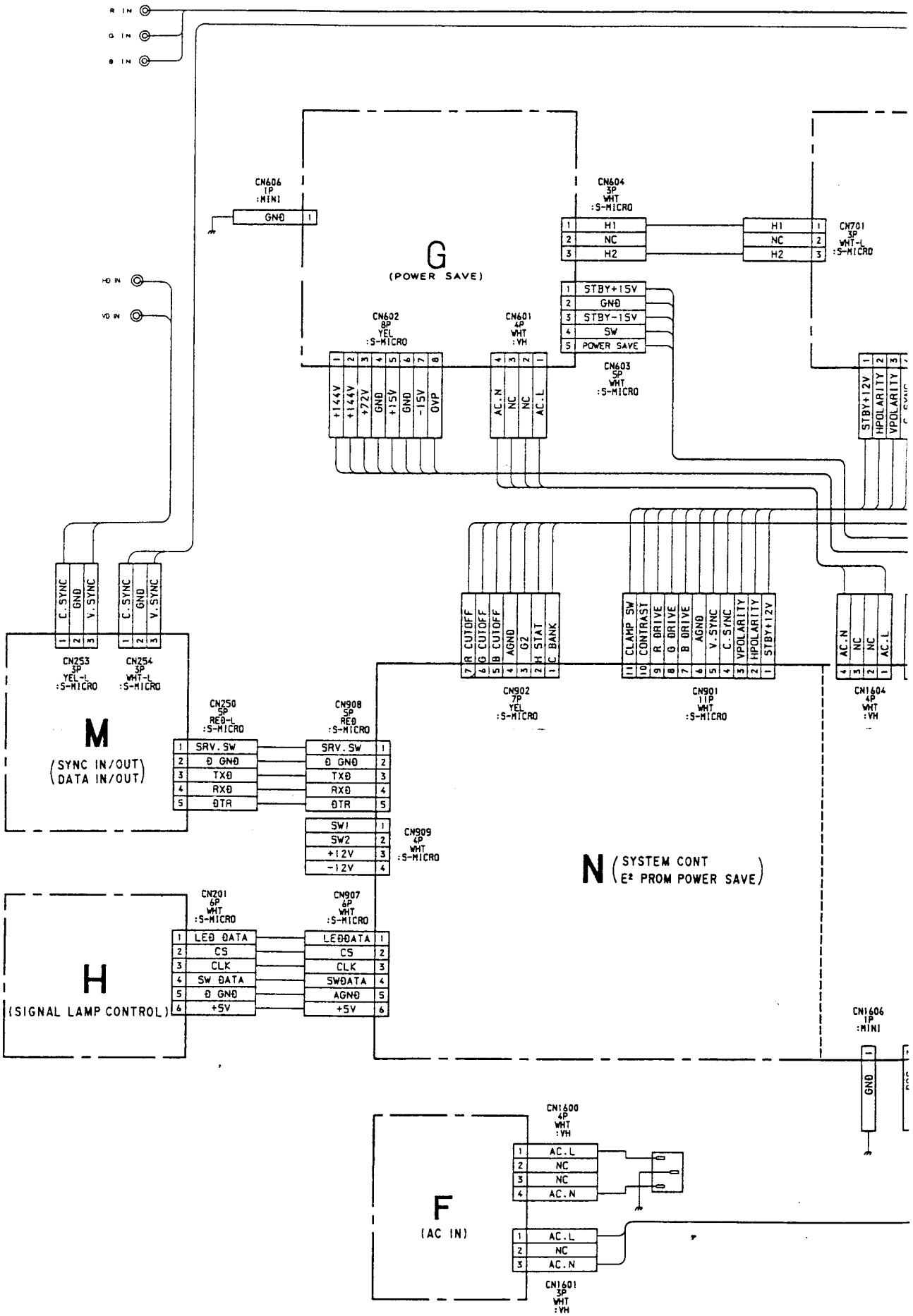
NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

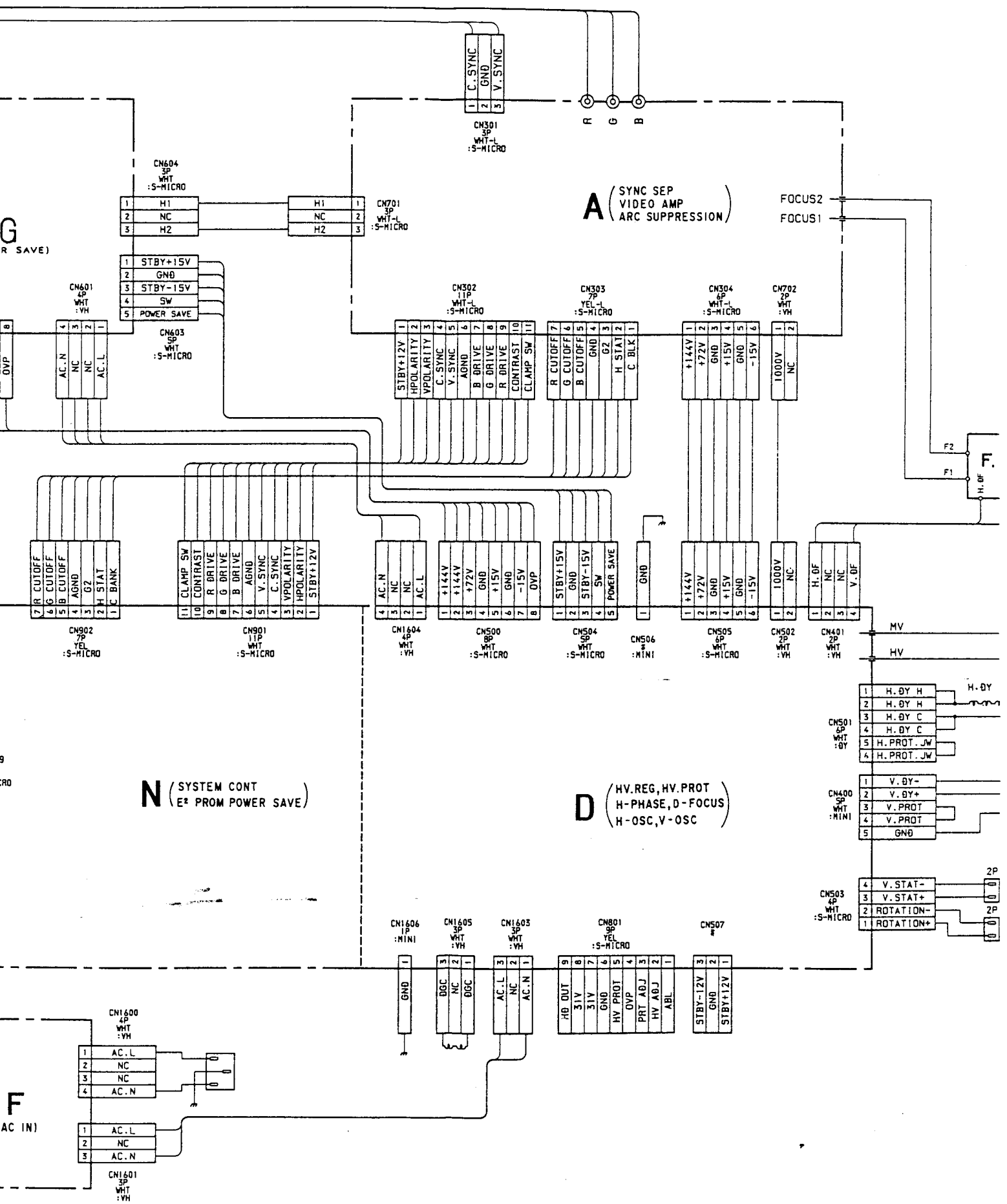
SAFETY-RELATED COMPONENT WARNING!!

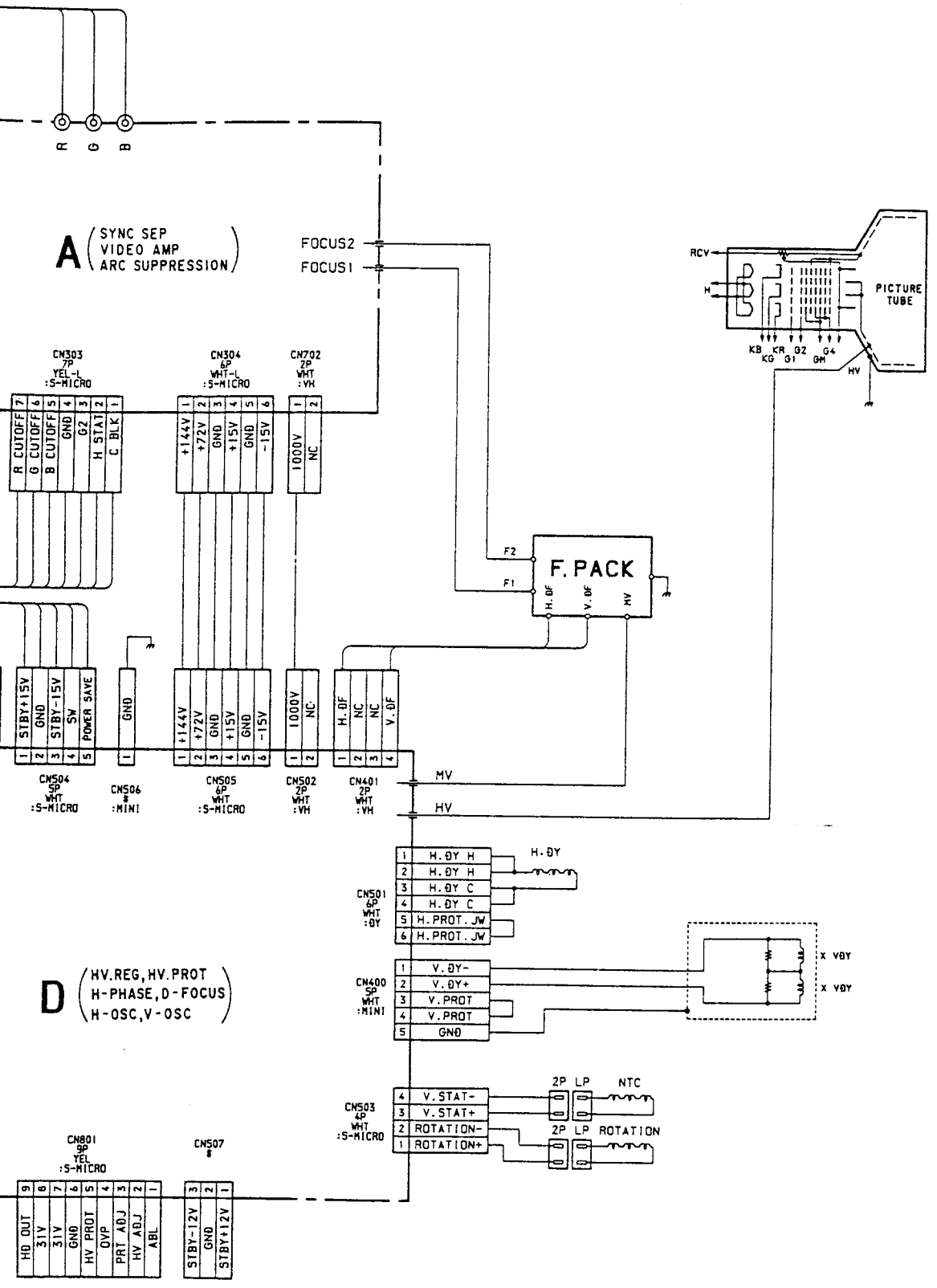
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.


CN502
1KV
H
To A BOARD CN702
CN651
H DY H
H DY C
H PROT
H DY
T501 HOT
+144V
MIX Q511
H DY OUT IC505
T500 HOT
H OUT Q512
H CENT Q517
IC502
T502 HST
SW Q1501
FH SEL IC508
FOCUS DRIVE Q506
DYNAMIC FOCUS Q402~404 Q410, 411
T401 FBT
+15V
FOCUS CONT IC404 Q406
T400 DFT
G
To A BOARD
CN401
F1
F2
H DF
F PACK
V DF
MV
HV
H DF Q412
VD FOCUS IC406 Q405
IC802
IC801
HV PWM Q804
T801 HOT
T800 FBT
IC803
CN803 (2/2)
H BLANK
HV DET
ABL
HV DRIVE Q801, 802, 805
H CONV Q803
V REF
SW Q809
BUFFER Q810
IC804 HVPM
IK PROT
HV ADJ
+B1
+B2
VPR
+31V
CN801
HV REG DET IC806
PRT ADJ
HD OUT
IC806
PROTECT Q811
HV PROT
OVP
H PROTECT Q806
CN500
FROM G BOARD CN602
+144V
+72V
+15V
-15V
+12V
+12V REG IC500
-12V
-12V REG IC501
D (2/2)
(HV REG, HV PROT, H PHASE, D FOCUS, H OSC, V OSC)
CN802 (2/2)
HD STOP
RETRC
V PROT Q409
CN503
NTC
V STAT-
V STAT+
ROTATION
ROTATION+
ROTATION-
V OUT IC407
CN400
V PROT
V DY+
V DY-
XV DY

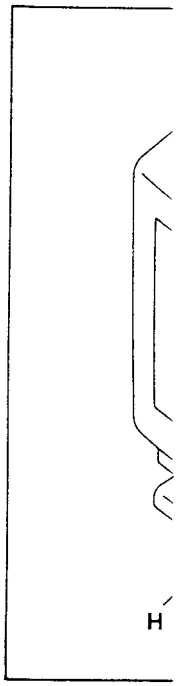
5-2. FRAME SCHEMATIC DIAGRAM




C.SYNC
GND
V.SYNC
CN301
3P
WHT-L
:S-MICRO
R
G
B
A
SYNC SEP
VIDEO AMP
ARC SUPPRESSION
FOCUS2
FOCUS1
CN604
3P
WHT
:S-MICRO
H1
NC
H2
CN701
3P
WHT-L
:S-MICRO
STBY+15V
GND
STBY-15V
SW
POWER SAVE
CN603
5P
WHT
:S-MICRO
CN601
4P
WHT
:VH
AC.N
NC
NC
AC.L
CN302
11P
WHT-L
:S-MICRO
STBY+12V
HPOLARITY
VPOLARITY
C.SYNC
V.SYNC
AGND
B DRIVE
G DRIVE
R DRIVE
CONTRAST
CLAMP SW
CN303
7P
YEL-L
:S-MICRO
R CUTOFF
G CUTOFF
B CUTOFF
GND
G2
H STAT
C BLK
CN304
6P
WHT-L
:S-MICRO
+144V
+72V
GND
+15V
GND
-15V
CN702
2P
WHT
:VH
100OV
NC
F2
F1
H.ØF
F.
CN902
7P
YEL
:S-MICRO
R CUTOFF
G CUTOFF
B CUTOFF
AGND
G2
H STAT
C BANK
CN901
11P
WHT
:S-MICRO
CLAMP SW
CONTRAST
R DRIVE
G DRIVE
B DRIVE
AGND
V.SYNC
C.SYNC
VPOLARITY
HPOLARITY
STBY+12V
CN1604
4P
WHT
:VH
AC.N
NC
NC
AC.L
CN500
8P
WHT
:S-MICRO
+144V
+144V
+72V
GND
+15V
GND
-15V
OVP
CN504
5P
WHT
:S-MICRO
STBY+15V
GND
STBY-15V
SW
POWER SAVE
CN506
:MINI
GND
CN505
6P
WHT
:S-MICRO
+144V
+72V
GND
+15V
GND
-15V
CN502
2P
WHT
:VH
100OV
NC
CN401
2P
WHT
:VH
H.ØF
NC
NC
V.ØF
MV
HV
H.ØY
CN501
6P
WHT
:ØY
H.ØY H
H.ØY H
H.ØY C
H.ØY C
H.PROT.JW
H.PROT.JW
CN400
5P
WHT
:MINI
V.ØY-
V.ØY+
V.PROT
V.PROT
GND
CN503
4P
WHT
:S-MICRO
V.STAT-
V.STAT+
ROTATION-
ROTATION+
2P
2P
N
SYSTEM CONT
E² PROM POWER SAVE
D
HV.REG,HV.PROT
H-PHASE,D-FOCUS
H-OSC,V-OSC
CN1606
1P
:MINI
GND
CN1605
3P
WHT
:VH
ØGC
NC
ØGC
CN1603
3P
WHT
:VH
AC.L
NC
AC.N
CN801
9P
YEL
:S-MICRO
HØ OUT
31V
31V
GND
HV PROT
OVP
PRT ADJ
HV ADJ
ABL
CN507
STBY-12V
GND
STBY+12V
CN1600
4P
WHT
:VH
AC.L
NC
NC
AC.N
AC.L
NC
AC.N
CN1601
3P
WHT
:VH
F
AC IN)



5-3. CIRCUI



5-4. SCHEMAT

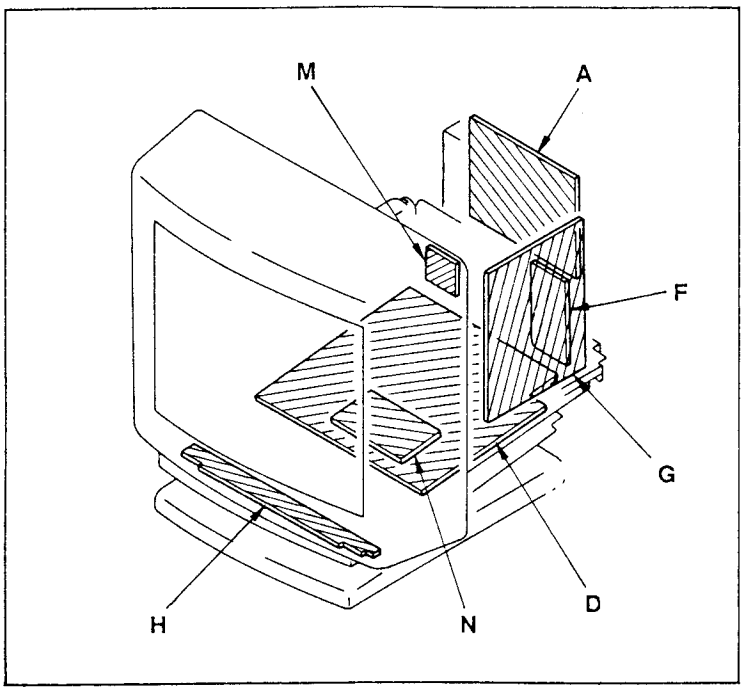
Note:

- All capacitors ar
  50 WV or less are
- Indication of resi
  electrical power,

Pitch: 5 mm
Rating electrical

- All resistors are in
- : nonflar
- : fusible
- : interna
- : panel c
- All variable and
  B, unless otherwis
- : earth-gr
- : earth-ch
- All voltages are in
- Readings are take
- Readings are take
- Voltage variation
  tolerances.
- * : Can no
- Circled numbers a
- : B + bu
- : B − bu

5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- * : Can not be measured.
- Circled numbers are waveform references.
- ——— : B + bus.
- — — — : B − bus.

Reference information

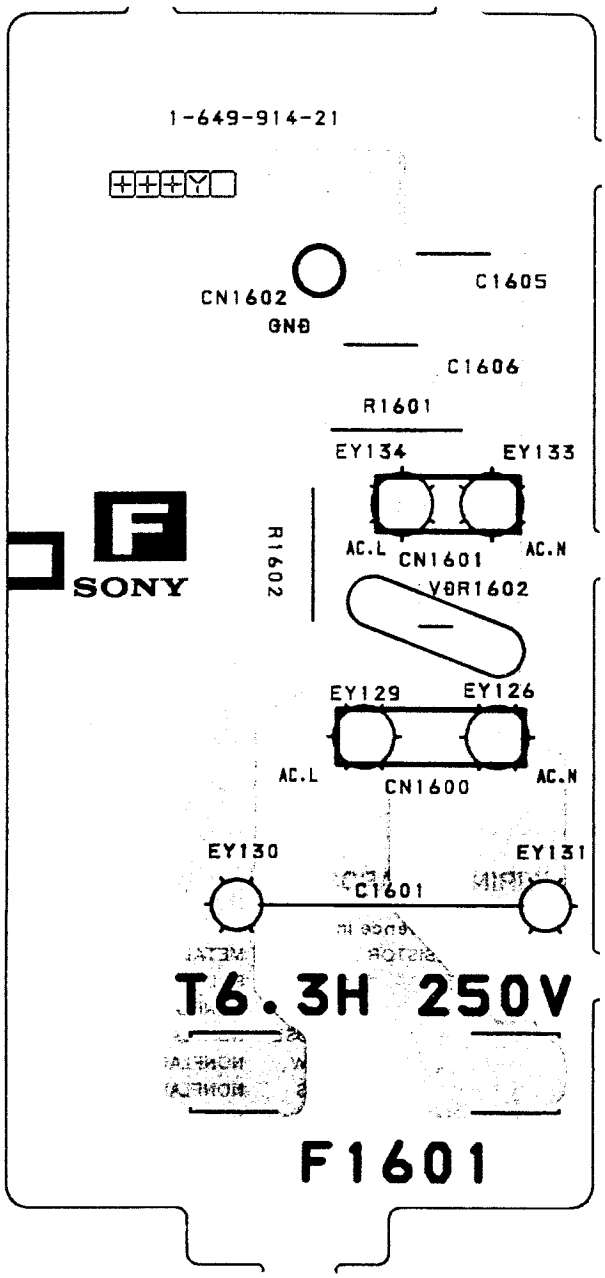
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

F [AC IN]

– F Board –



• D B

IC401
IC404
IC406
IC407
IC408
IC409
IC410
IC500
IC501
IC502
IC503
IC505
IC506
IC801
IC802
IC803
IC804
IC806

TRAN

Q402
Q403
Q404
Q406
Q408
Q409
Q410
Q411
Q412
Q506
Q511
Q512
Q513
Q514
Q515
Q517
Q518
Q519
Q520
Q521
Q522
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q809
Q810
Q811
Q812
Q1501
Q1603
Q1606
Q1607

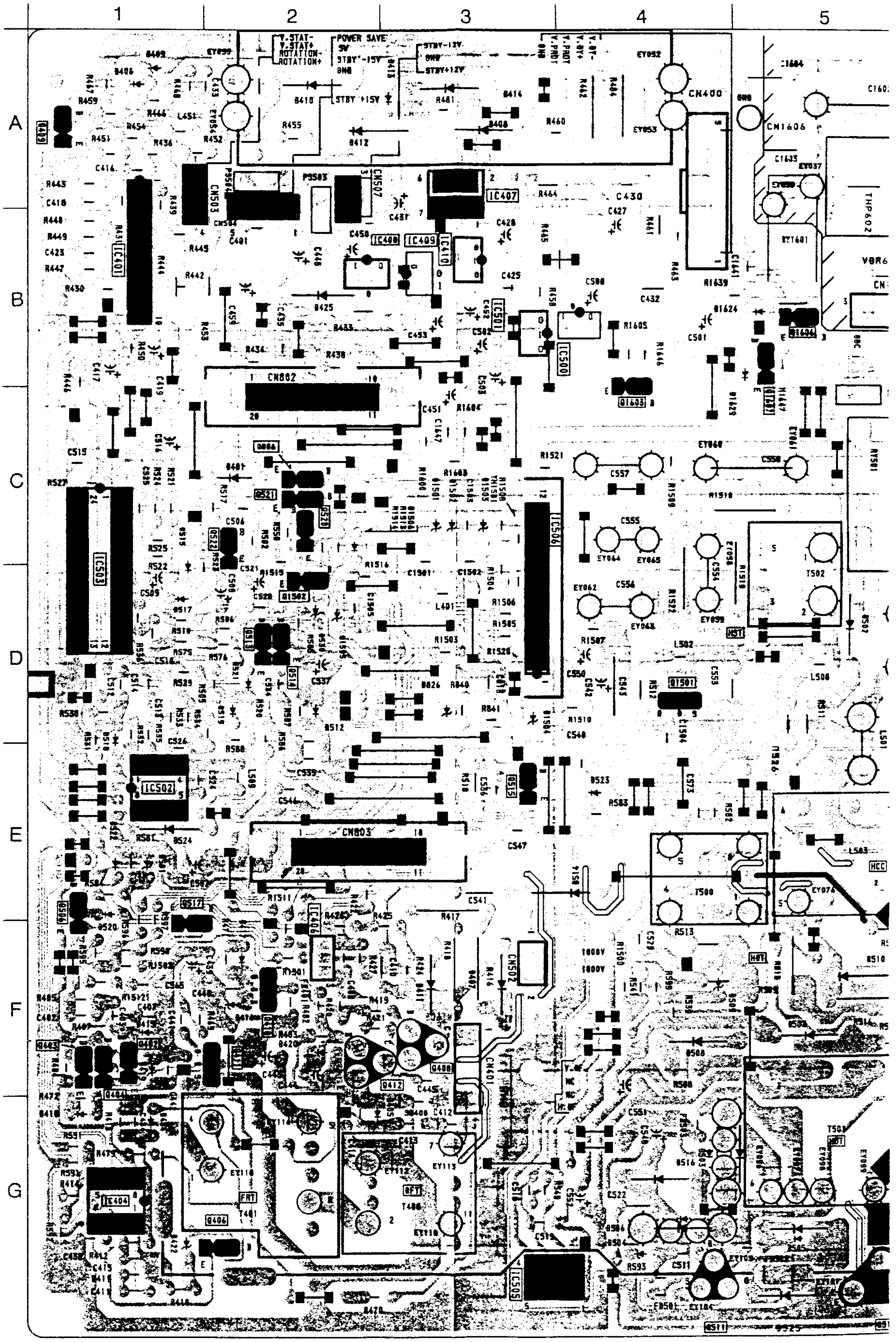
• **D BOARD**

IC		TRANSISTOR		DIODE		DIODE	
IC401	B – 1	Q402	F – 1	D404	G – 1	D815	F – 6
IC404	G – 1	Q403	F – 1	D405	G – 2	D816	E – 7
IC406	F – 2	Q404	F – 1	D406	A – 1	D817	E – 7
IC407	A – 3	Q406	G – 2	D407	F – 3	D819	D – 7
IC408	B – 2	Q408	F – 3	D408	A – 3	D820	D – 6
IC409	B – 3	Q409	A – 1	D409	A – 1	D821	E – 7
IC410	B – 3	Q410	F – 2	D410	A – 2	D823	D – 6
IC500	B – 4	Q411	F – 2	D411	F – 3	D824	F – 6
IC501	B – 3	Q412	F – 2	D412	A – 2	D825	G – 7
IC502	E – 1	Q506	F – 1	D413	A – 3	D826	D – 3
IC503	C – 1	Q511	G – 4	D414	A – 3	D827	D – 7
IC505	G – 3	Q512	G – 5	D415	F – 1	D828	C – 6
IC506	C – 3	Q513	D – 2	D416	F – 2	D829	E – 7
IC801	C – 7	Q514	D – 2	D417	F – 2	D1501	C – 3
IC802	D – 6	Q515	E – 3	D418	G – 1	D1502	C – 3
IC803	E – 6	Q517	F – 1	D419	F – 1	D1503	C – 3
IC804	D – 7	Q518	C – 6	D420	F – 2	D1504	D – 2
IC806	D – 6	Q519	C – 6	D421	E – 6	D1505	D – 2
		Q520	D – 3	D422	G – 1	D1624	C – 6
		Q521	C – 3	D425	B – 2	D1629	B – 5
		Q522	C – 2	D501	E – 1		
		Q801	C – 8	D502	C – 5		
		Q802	C – 8	D503	G – 4		
		Q803	D – 8	D504	G – 4		
		Q804	F – 7	D505	G – 5		
		Q805	C – 7	D506	G – 4		
		Q806	D – 3	D507	F – 5		
		Q807	C – 6	D508	F – 4		
		Q809	D – 7	D509	G – 4		
		Q810	D – 7	D510	F – 5		
		Q811	D – 6	D511	G – 6		
		Q812	B – 8	D512	D – 2		
		Q1501	D – 4	D513	C – 6		
		Q1603	C – 4	D514	E – 4		
		Q1606	C – 6	D515	D – 1		
		Q1607	B – 4	D516	G – 5		
				D517	D – 1		
				D518	D – 1		
				D519	D – 2		
				D520	E – 1		
				D521	D – 1		
				D522	E – 1		
				D523	E – 3		
				D524	E – 1		
				D801	C – 8		
				D802	C – 7		
				D803	C – 7		
				D805	C – 6		
				D806	D – 7		
				D807	D – 8		
				D808	E – 7		
				D809	E – 6		
				D810	D – 7		
				D811	E – 6		
				D812	D – 8		
				D813	D – 8		
				D814	E – 6		

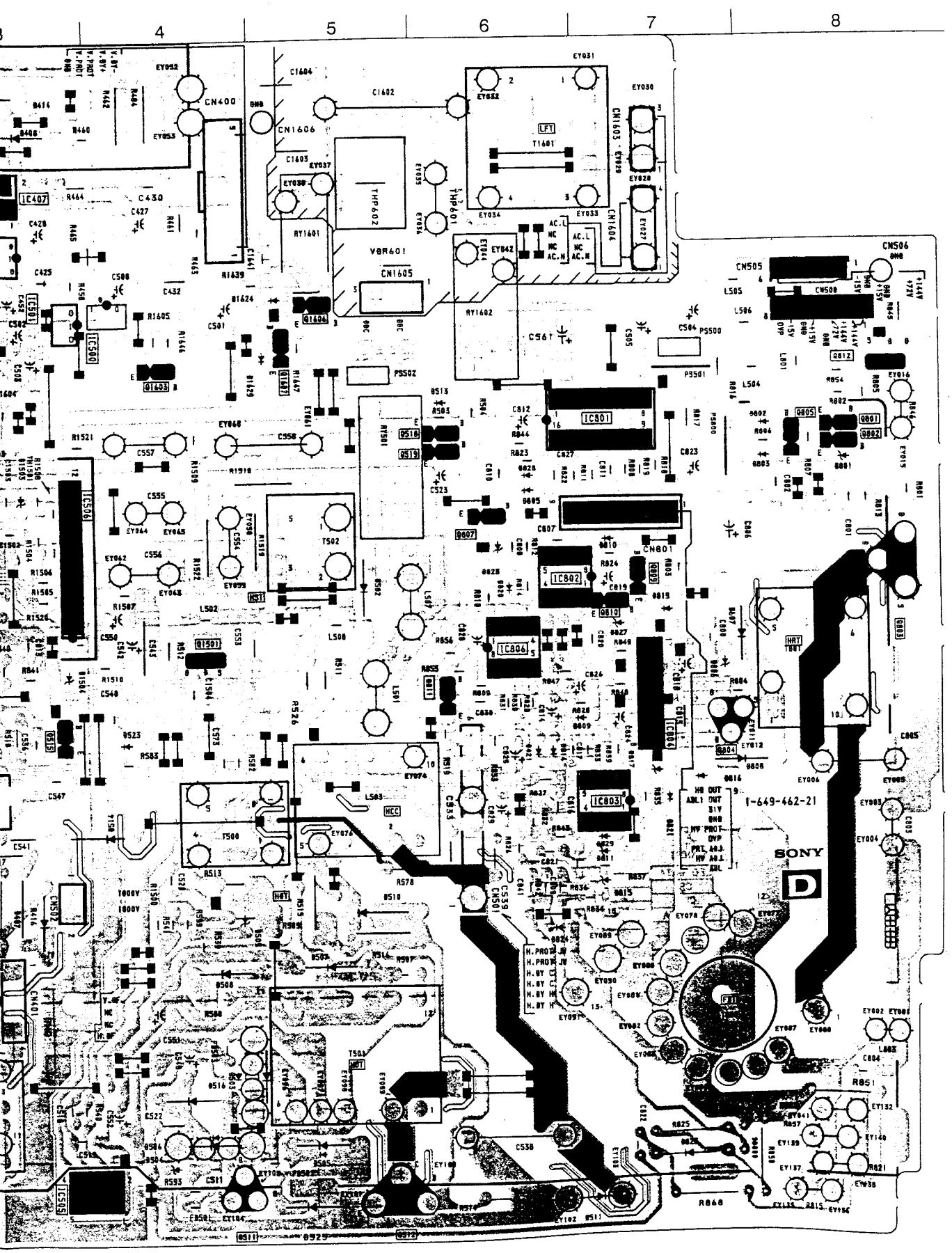
D
[HV. REG, HV. PROT
H-PHASE, D-FOCUS
H-OSC, V-OSC]

– D Board –

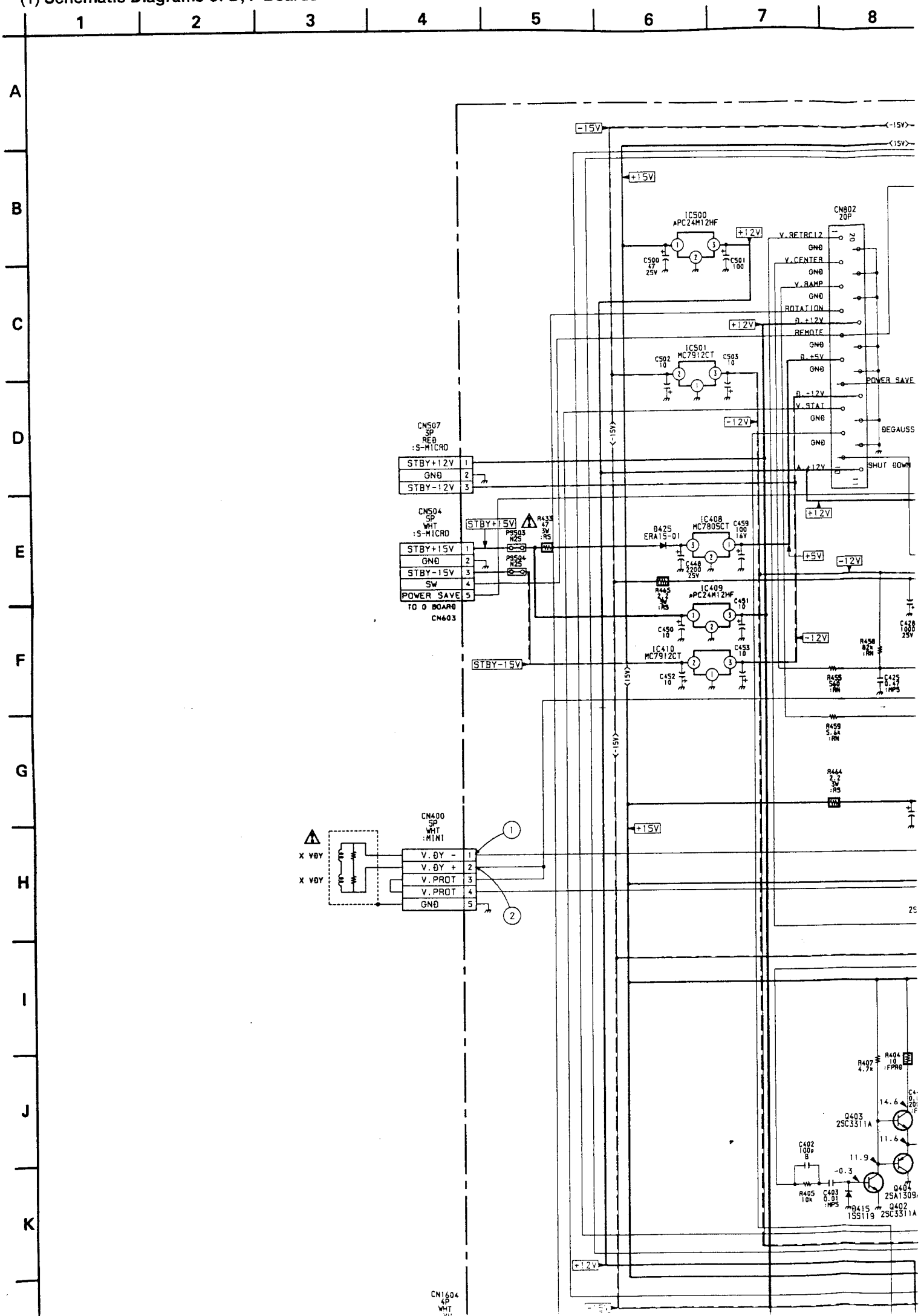
F – 6
E – 7
E – 7
D – 7
D – 6
E – 7
D – 6
F – 6
G – 7
D – 3
D – 7
C – 6
E – 7
C – 3
C – 3
C – 3
D – 2
D – 2
C – 6
B – 5



1
2
3
4
5
A
B
C
D
E
F
G
V.STAT-
V.STAT+
ROTATION-
ROTATION+
POWER SAVE
5V
STBY -15V
GND
STBY +15V
STBY-12V
GND
STBY+12V
CN400
CN1606
CN503
CN507
CN802
CN803
CN502
CN401
IC401
IC407
IC408
IC409
IC410
IC500
IC501
IC502
IC503
IC504
IC505
IC506
T500
T502
T501
T401
T406
THP602
1000V


4
5
6
7
8
CN400
CN1606
CN1603
CN1604
CN1605
CN506
CN505
CN508
CN801
CN502
CN401
IC407
IC801
IC802
IC804
IC803
IC501
IC505
T1601
T502
T500
T501
THP601
THP602
RY1601
RY1602
V8R601
PS502
PS501
PS500
LFT
HRT
HST
HCC
1-649-462-21
SONY
D

(1) Schematic Diagrams of D, F Boards



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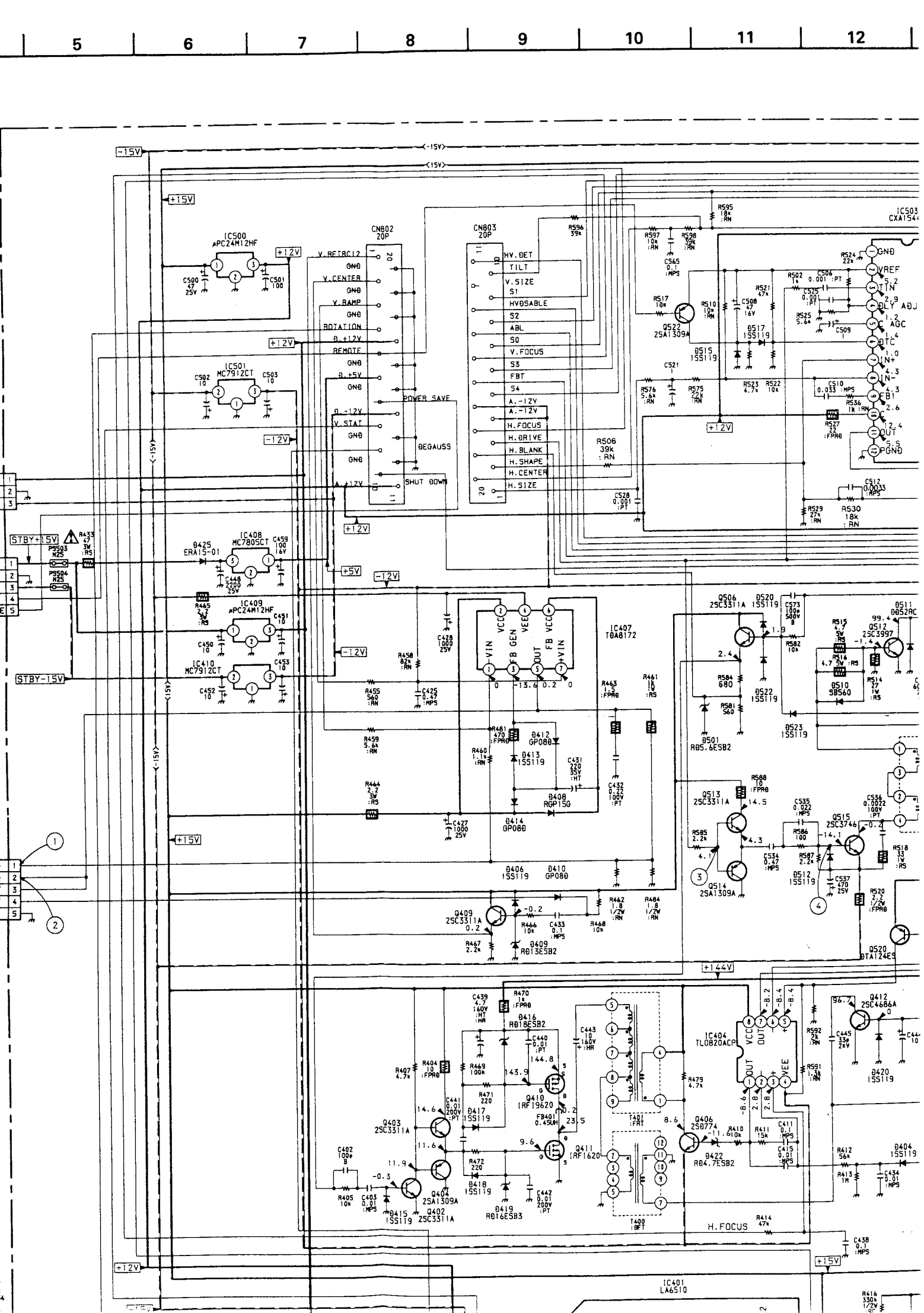
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6
7
8
9
10
11
12
-15V
+15V
+12V
-12V
+5V
+144V
STBY+15V
STBY-15V
IC500 μPC24M12HF
IC501 MC7912CT
IC408 MC78Ø5CT
IC409 μPC24M12HF
IC410 MC7912CT
IC407 T0A8172
IC404 TL0820ACP
IC401 LA6510
CN802 20P
CN803 20P
V.RETRC12
V.CENTER
V.RAMP
ROTATION
REMOTE
POWER SAVE
DEGAUSS
SHUT DOWN
V.STAT
HV.DET
TILT
V.SIZE
S1
HVDSABLE
S2
ABL
S0
V.FOCUS
S3
FBT
S4
H.FOCUS
H.DRIVE
H.BLANK
H.SHAPE
H.CENTER
H.SIZE
D425 ERA15-01
D501 RØ5.6ESB2
D409 RØ13ESB2
D416 RØ18ESB2
D422 RØ4.7ESB2
D419 RØ16ESB3
Q522 2SA1309A
Q517 1SS119
Q515 1SS119
Q506 2SC3311A
Q520 1SS119
Q512 2SC3997
Q513 2SC3311A
Q515 2SC3746
Q514 2SA1309A
Q520 DTA124ES
Q409 2SC3311A
Q410 IRF1962Ø
Q411 IRF162Ø
Q403 2SC3311A
Q404 2SA1309A
Q402 2SC3311A
Q406 2SØ774
Q412 2SC4686A
T401 FRT
T400 BFT
FB401 0.45UH
H.FOCUS
VCC
VEE
FB GEN
VIN
OUT
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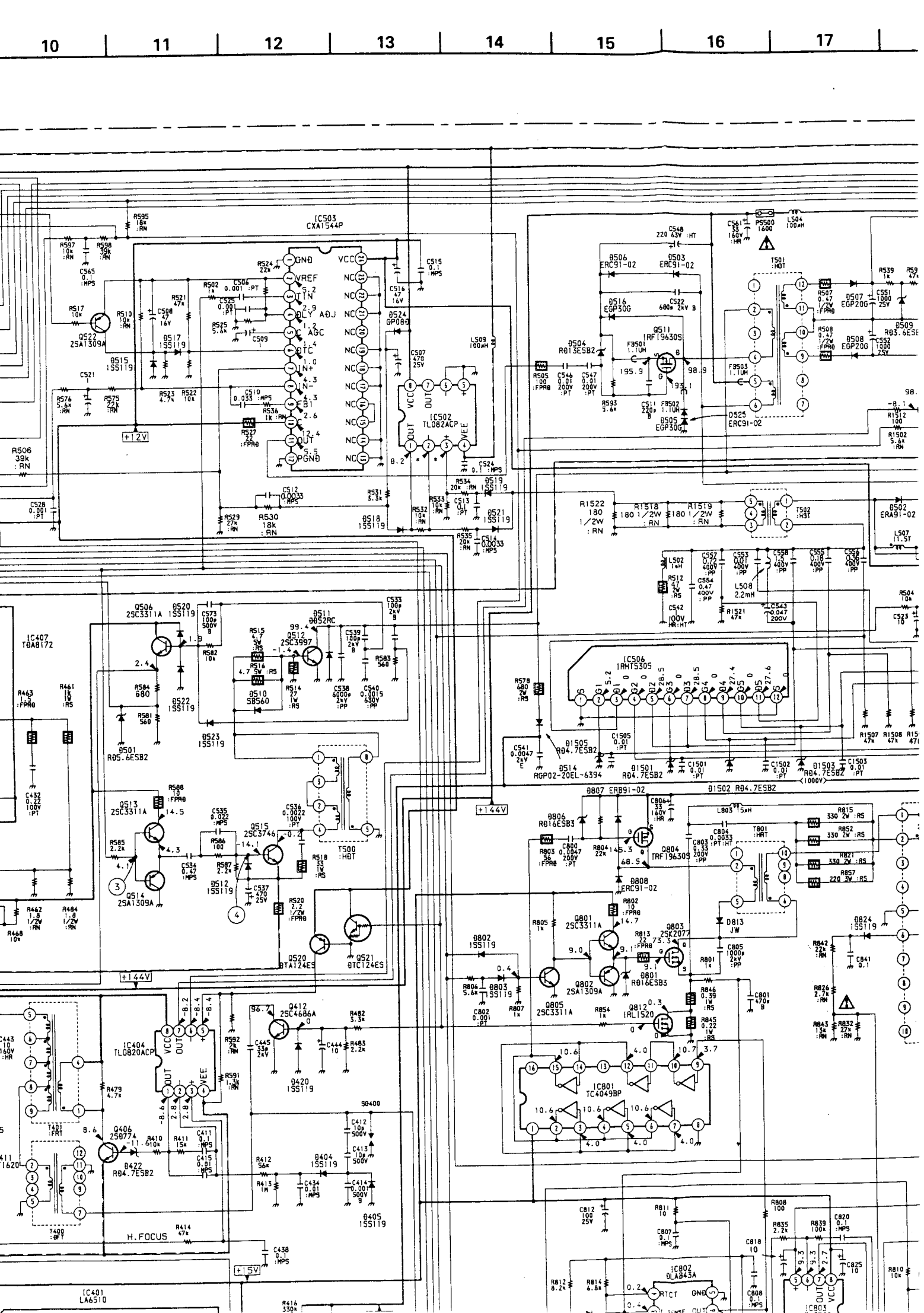
AGC
DTC
IN+
IN-
FBI
C
OUT
PGND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IC404
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IC801
TC4049BP
IC802
9LA843A
IC401
LA6510
T500
:HOT
T501
:HOT
T502
:HST
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DTC124ES
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Q802
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Q412
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Q406
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D503
ERC91-02
D504
R013ESB2
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EGP30G
D506
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D507
EGP20G
D508
EGP20G
D509
R03.6ESB
D516
EGP30G
D525
ERC91-02
D807
ERB91-02
D808
ERC91-02
D813
JW
D824
1SS119
D501
R05.6ESB2
D522
1SS119
D523
1SS119
D512
1SS119
D518
1SS119
D519
1SS119
D521
1SS119
D802
1SS119
D803
1SS119
D804
1SS119
D420
1SS119
D404
1SS119
D405
1SS119
D422
R04.7ESB2
D1501
R04.7ESB2
D1502
R04.7ESB2
D1503
R04.7ESB2
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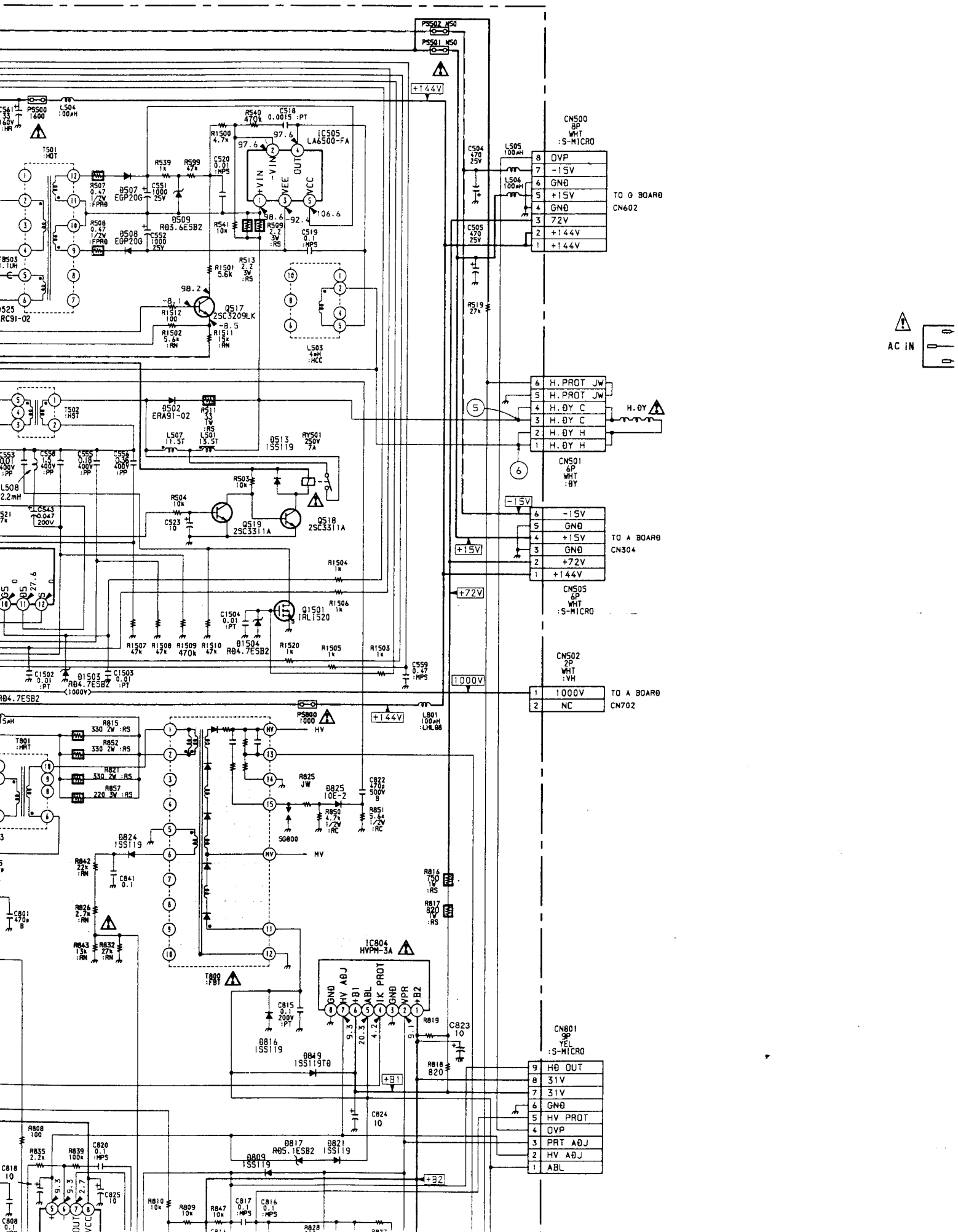
D514
RGP02-20EL-6394
+12V
+144V
+15V
H.FOCUS
SG400


CN500
8P
WHT
:S-MICRO
8 OVP
7 -15V
6 GND
5 +15V
4 GND
3 72V
2 +144V
1 +144V
TO G BOARD
CN602
CN501
6P
WHT
:BY
6 H.PROT JW
5 H.PROT JW
4 H.DY C
3 H.DY C
2 H.DY H
1 H.DY H
H.DY
CN505
6P
WHT
:S-MICRO
6 -15V
5 GND
4 +15V
3 GND
2 +72V
1 +144V
TO A BOARD
CN304
CN502
2P
WHT
:VH
1 1000V
2 NC
TO A BOARD
CN702
CN801
9P
YEL
:S-MICRO
9 HD OUT
8 31V
7 31V
6 GND
5 HV PROT
4 OVP
3 PRT ADJ
2 HV ADJ
1 ABL
AC IN
IC505
LA6500-FA
IC804
HVPM-3A
Q517
2SC3209LK
Q518
2SC3311A
Q519
2SC3311A
Q1501
IRLI520
T501 :HOT
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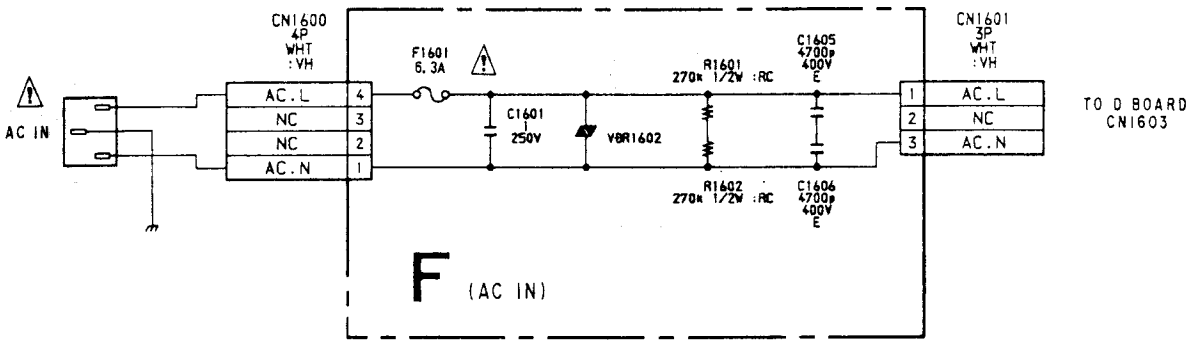
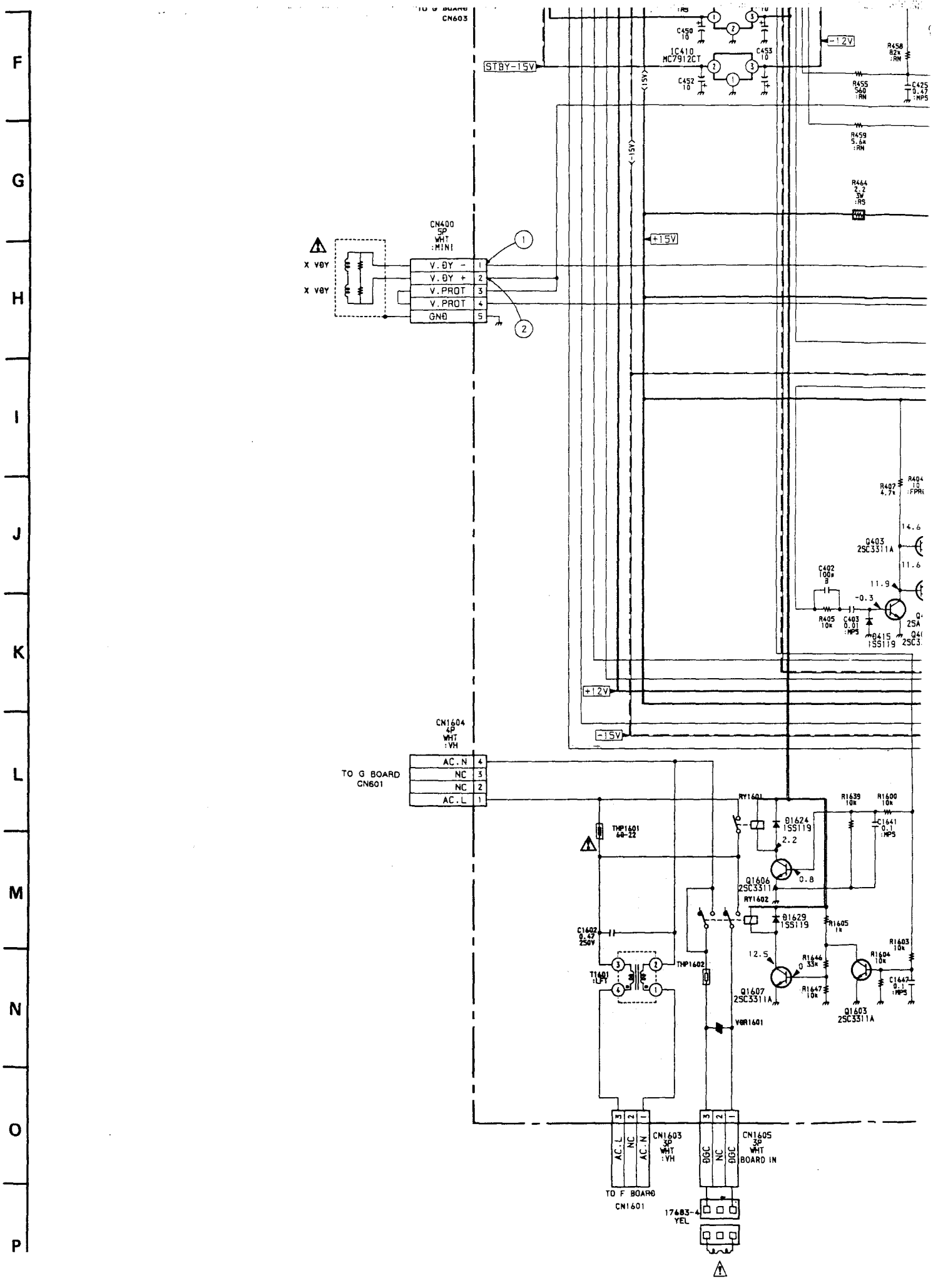
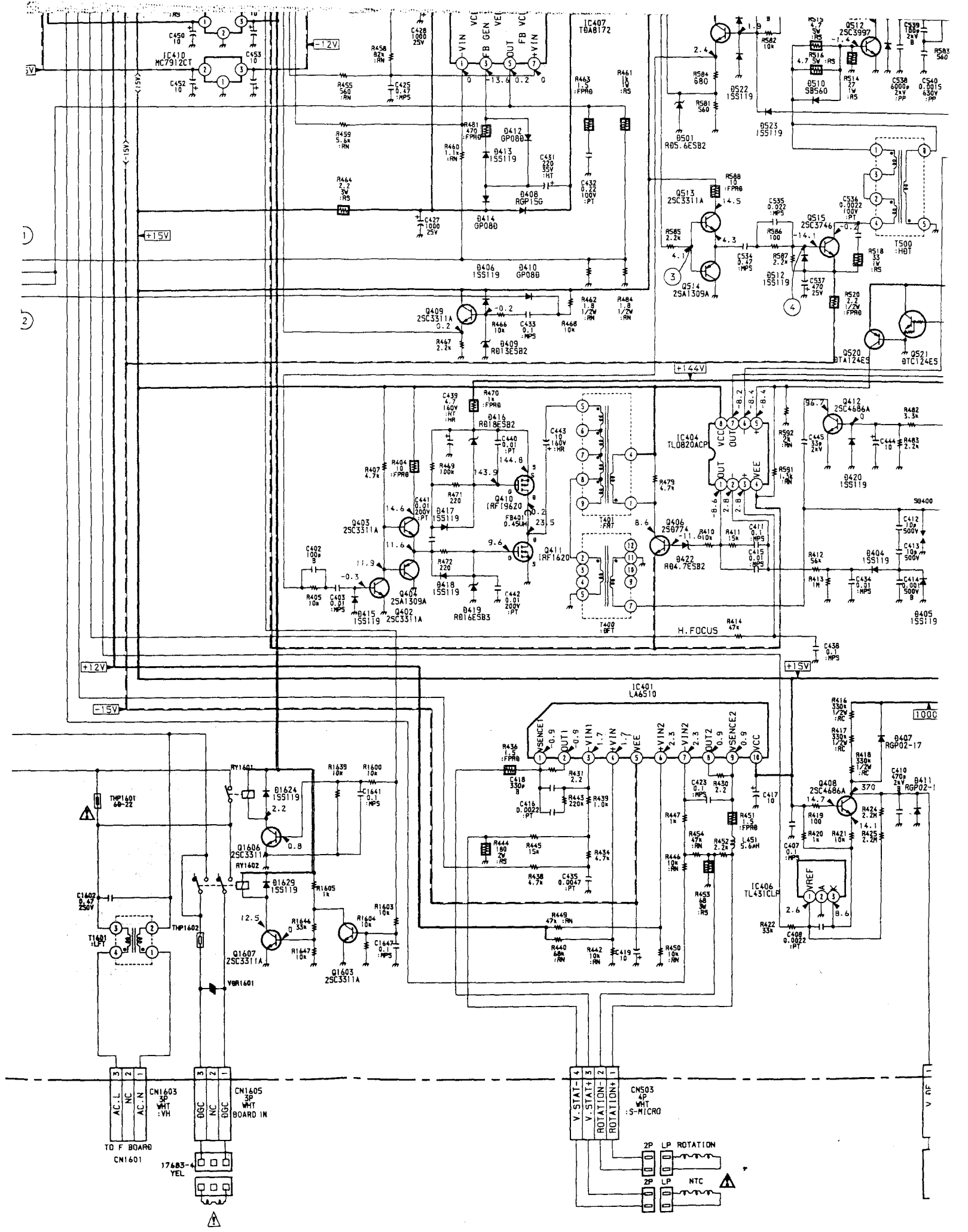
+72V
1000V
+B1
+B2
HV
SG800

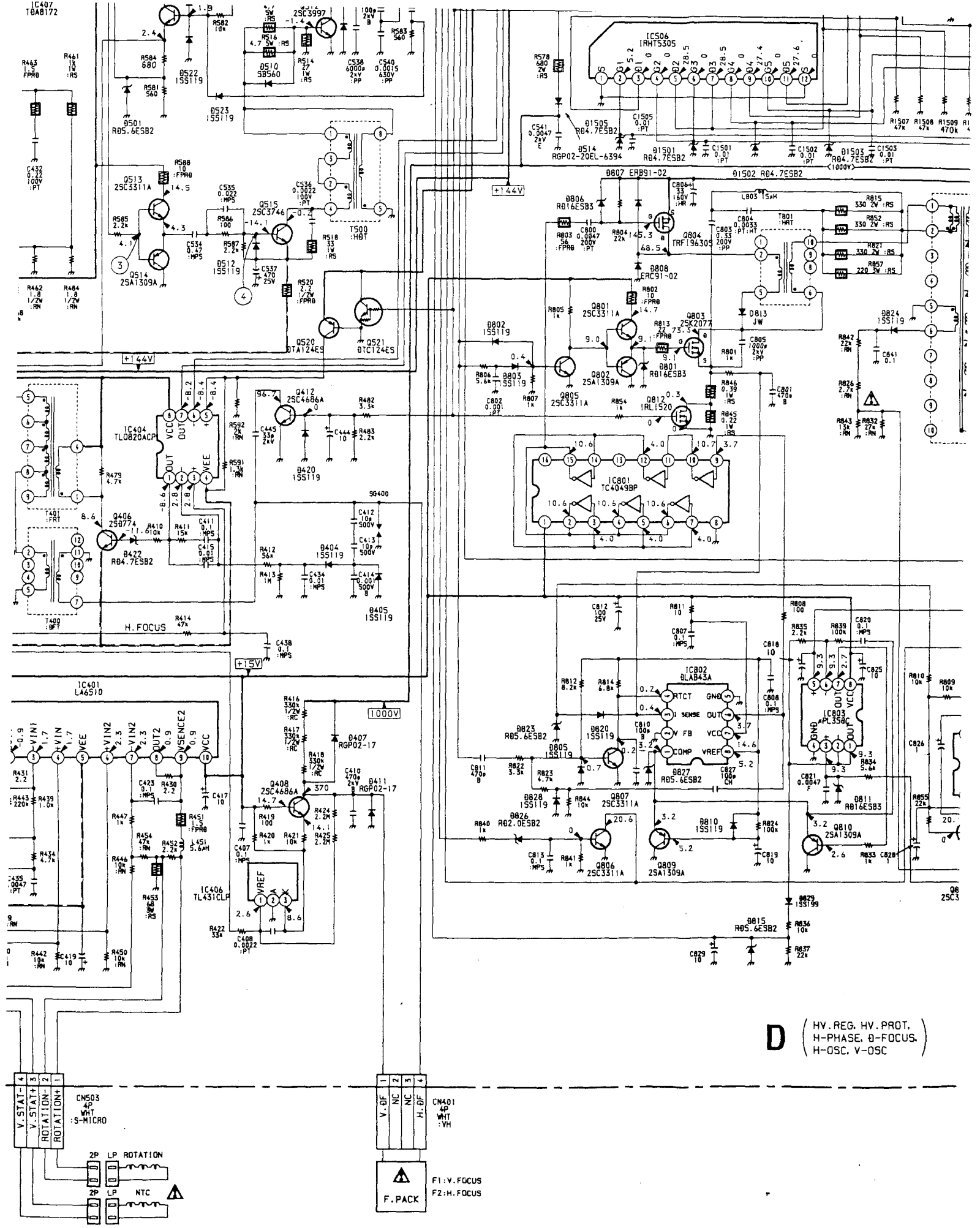


D BOARD WAVEFORMS

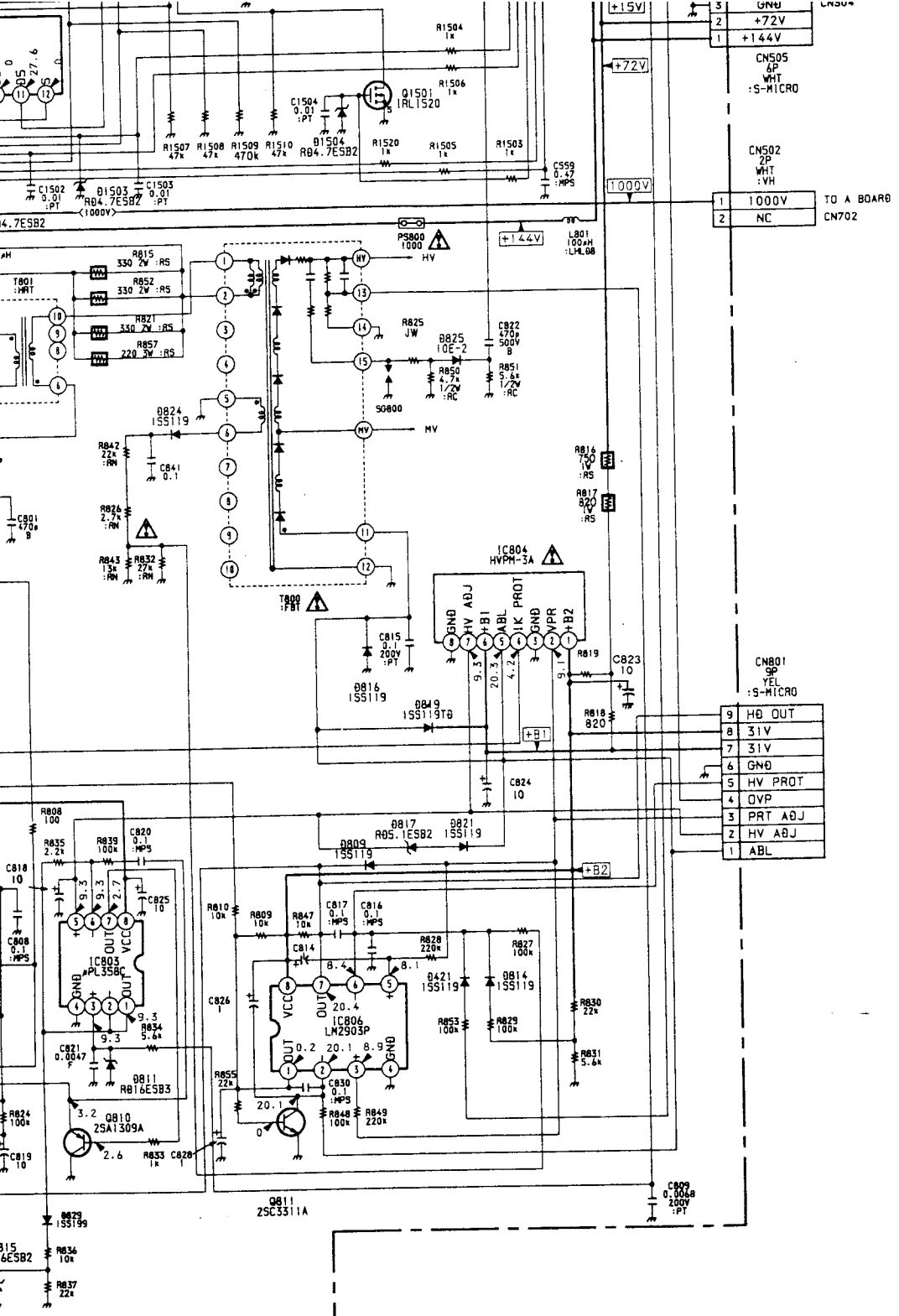
① 2.1 Vp-p (H)	② 50.0 Vp-p (H)	③ 10.0 Vp-p (H)
④ 3.0 Vp-p (H)	⑤ 75.0 Vp-p (H)	⑥ 80.0 Vp-p (V)


F
G
H
I
J
K
L
M
N
O
P
TO G BOARD
CN603
STBY-15V
IC410
MC7912CT
C450
10
C452
10
C453
10
-12V
R458
82k
:RN
R455
560
:RN
C425
0.47
:MPS
R459
5.6k
:RN
R464
2.2
3W
:RS
(15V)
(-15V)
+15V
CN400
SP
WHT
:MINI
X VΘY
X VΘY
V.ΘY -
V.ΘY +
V.PROT
V.PROT
GNΘ
1
2
3
4
5
R407
4.7k
R404
10
:FPRE
14.6
Q403
2SC3311A
11.6
C402
100p
B
11.9
-0.3
R405
10k
C403
0.01
:MPS
D415
1SS119
+12V
-15V
CN1604
4P
WHT
:VH
TO G BOARD
CN601
AC.N
NC
NC
AC.L
4
3
2
1
RY1601
D1624
1SS119
2.2
R1639
10k
R1600
10k
C1641
0.1
:MPS
THP1601
60-22
Q1606
2SC3311
0.8
RY1602
D1629
1SS119
R1605
1k
C1602
0.47
250V
T1601
:LPT
THP1602
12.5
R1646
33k
R1603
10k
R1604
10k
C1647
0.1
:MPS
Q1607
2SC3311A
R1647
10k
Q1603
2SC3311A
VDR1601
CN1603
3P
WHT
:VH
AC.L
NC
AC.N
TO F BOARD
CN1601
CN1605
3P
WHT
BOARD IN
ΘGC
NC
ΘGC
17683-4
YEL


IC410 MC7912CT
IC407 TDA8172
-12V
+15V
-15V
+144V
+12V
IC404 TL0820ACP
Q501 R05.6ESB2
Q409 2SC3311A
Q410 IRF9620
Q411 IRF1620
Q412 2SC4686A
Q413 2SA1309A
Q414 2SC3311A
Q415 2SC3746
Q416 R018ESB2
Q417 R016ESB3
Q418 R04.7ESB2
Q419 1SS119
Q420 GP08B
Q421 GP15G
T400 :BFT
T401 :FRT
T500 :HOT
H.FOCUS
IC401 LA6510
IC406 TL431CLP
RY1601
RY1602
THP1601
THP1602
T1601 :LPT
CN1603 3P WHT :VH
AC.L
NC
AC.N
TO F BOARD
CN1601
CN1605 3P WHT BOARD IN
DGC
NC
DGC
17683-4 YEL
CN503 4P WHT :S-MICRO
V.STAT-
V.STAT+
ROTATION-
ROTATION+
2P LP ROTATION
2P LP NTC

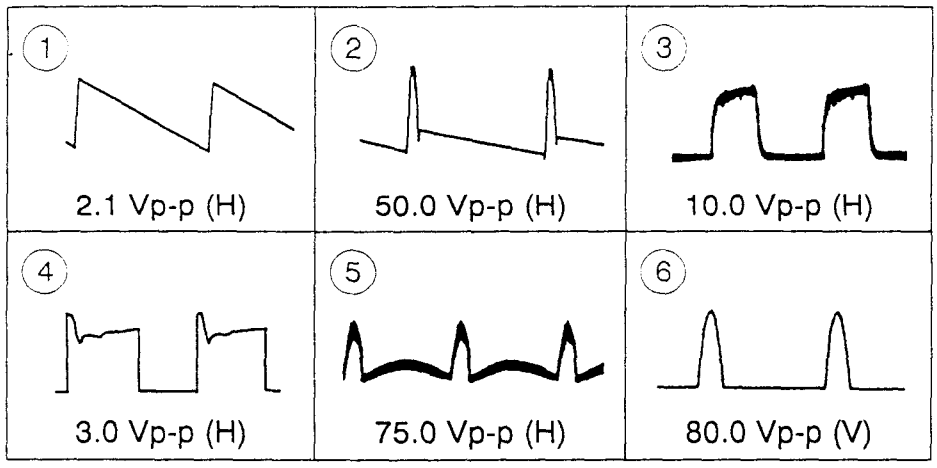


D (HV.REG. HV.PROT. H-PHASE. Θ-FOCUS. H-OSC. V-OSC)

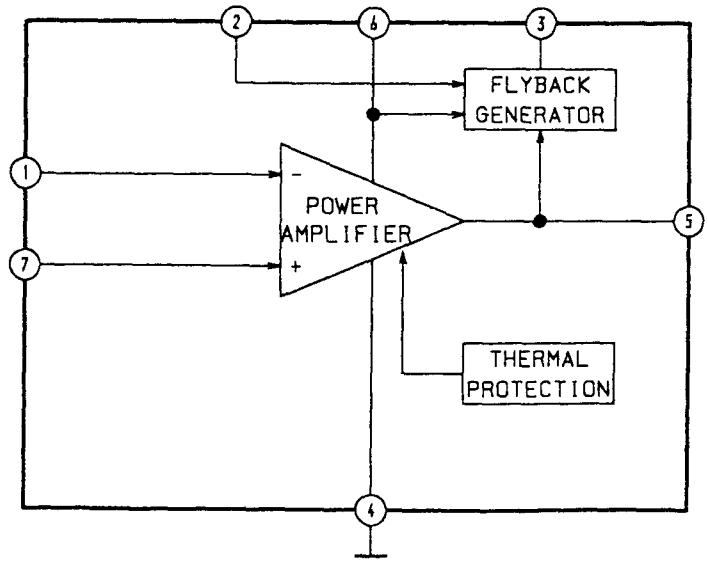


D (HV. REG. HV. PROT. H-PHASE. Ø-FOCUS. H-OSC. V-OSC)

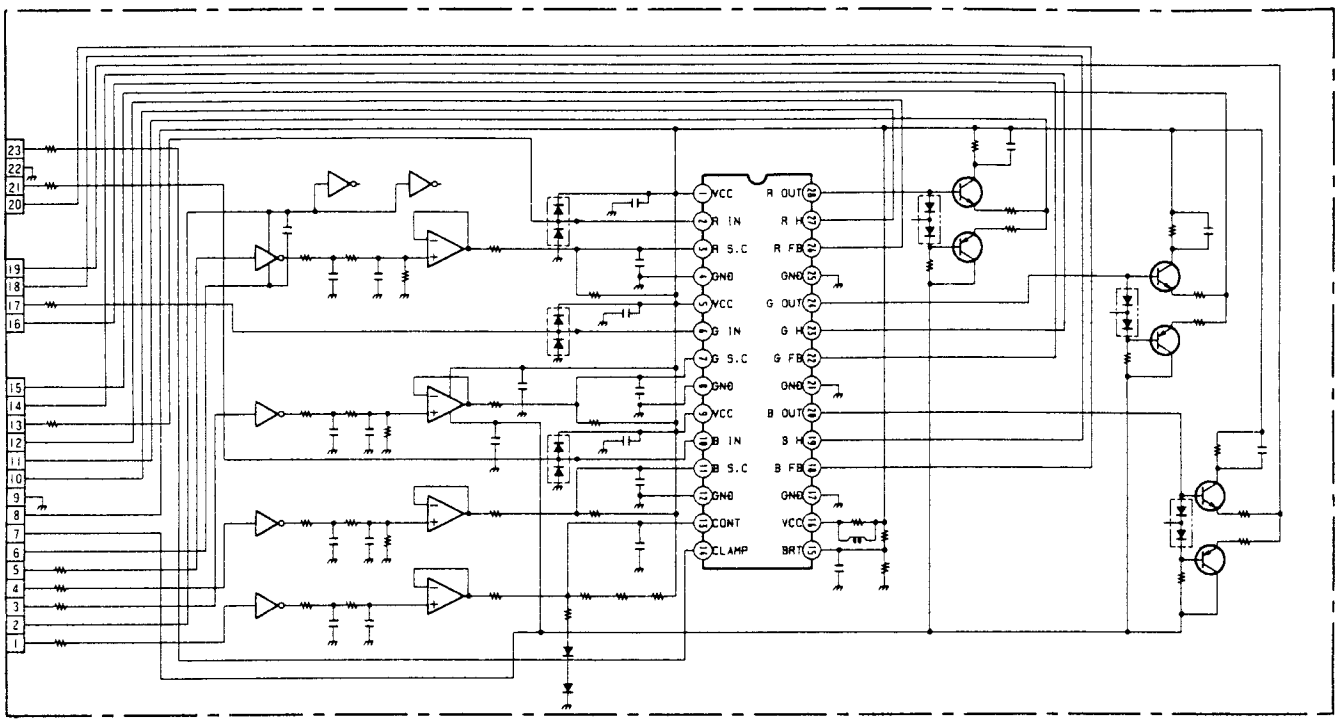
D BOARD WAVEFORMS



D Board IC407 TDA8172

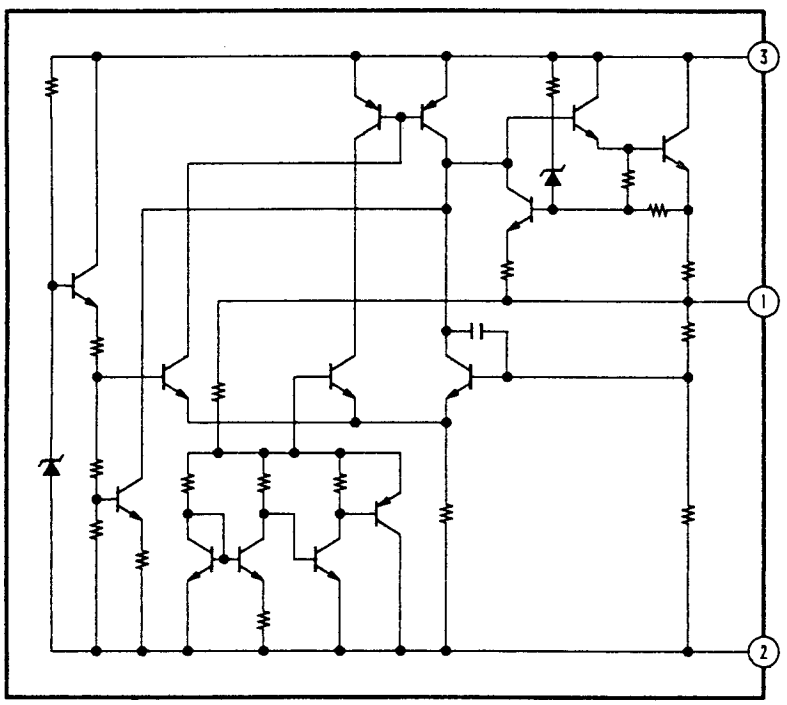


A Board IC001 PRE-1

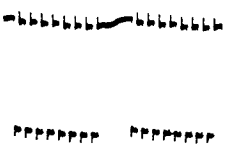


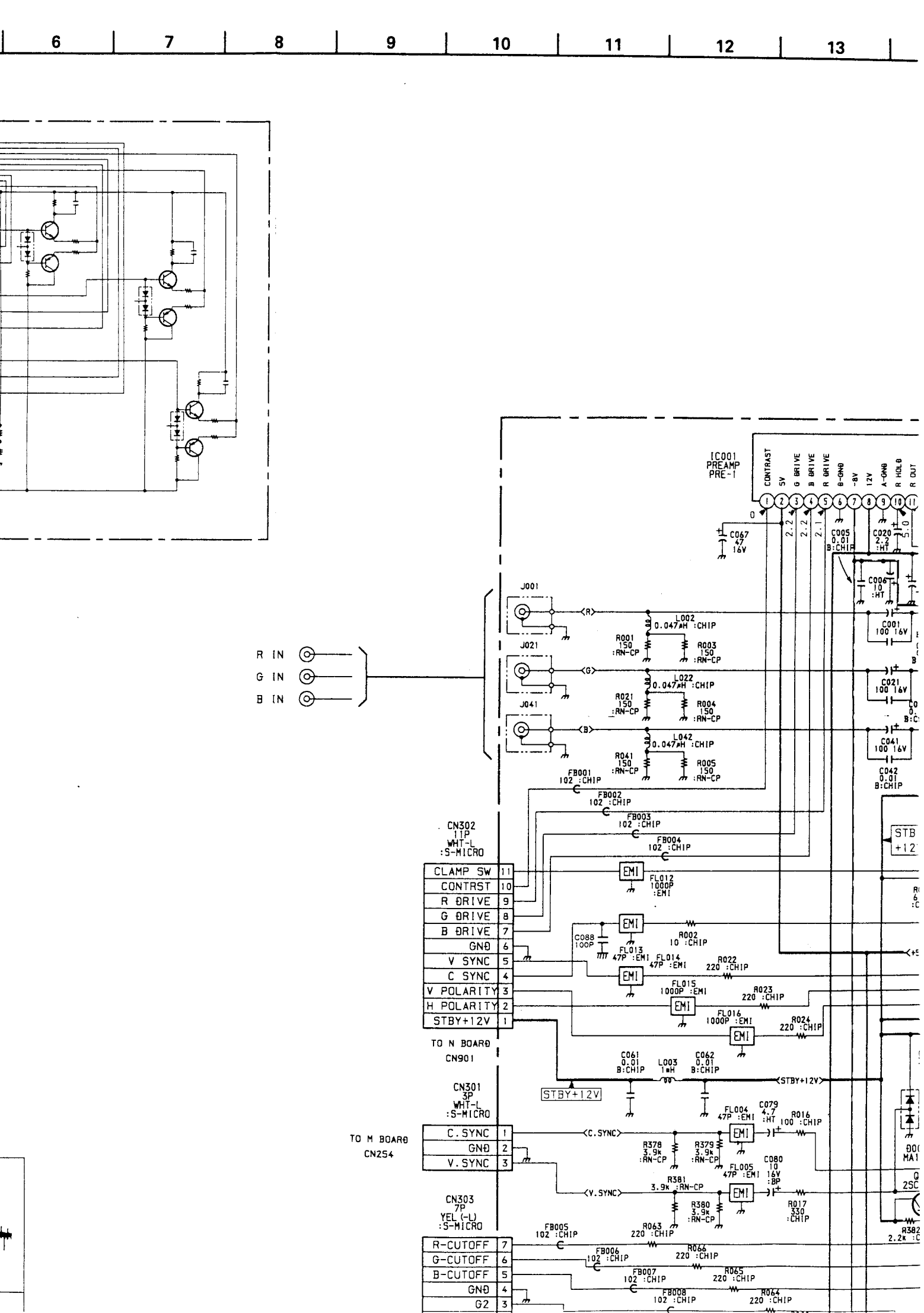
R IN
G IN
B IN

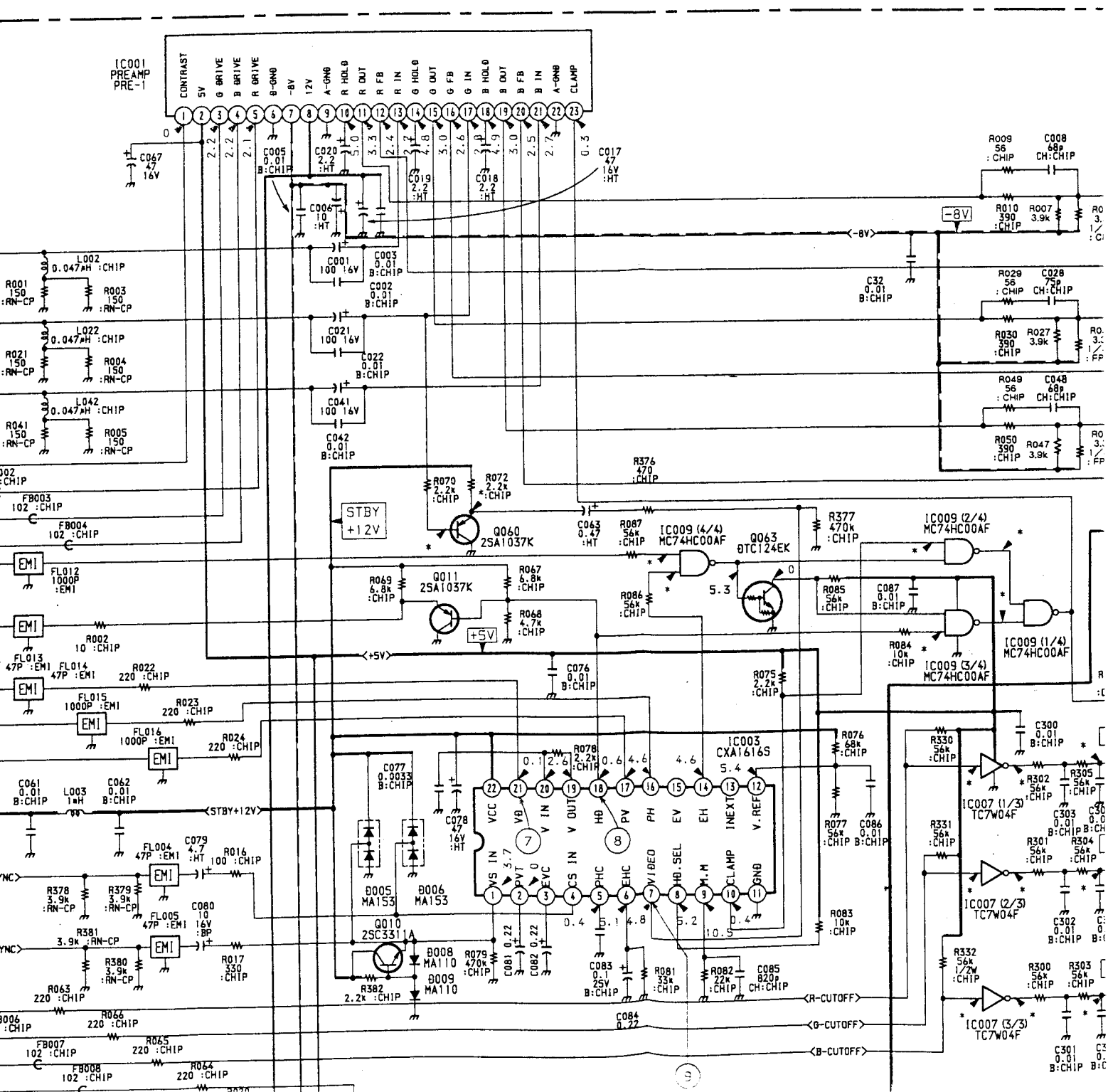
A Board IC005 NJM78L05A

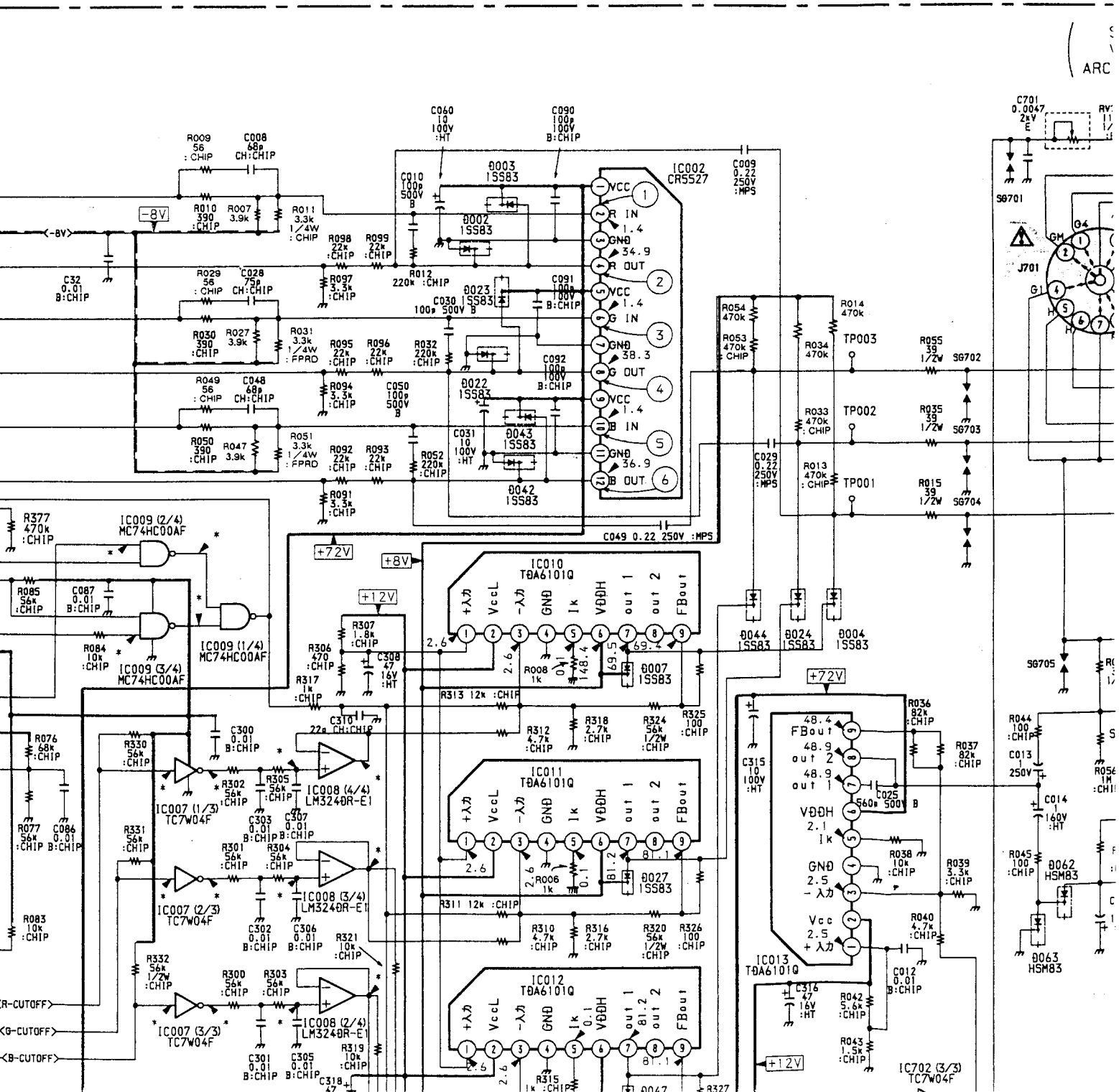


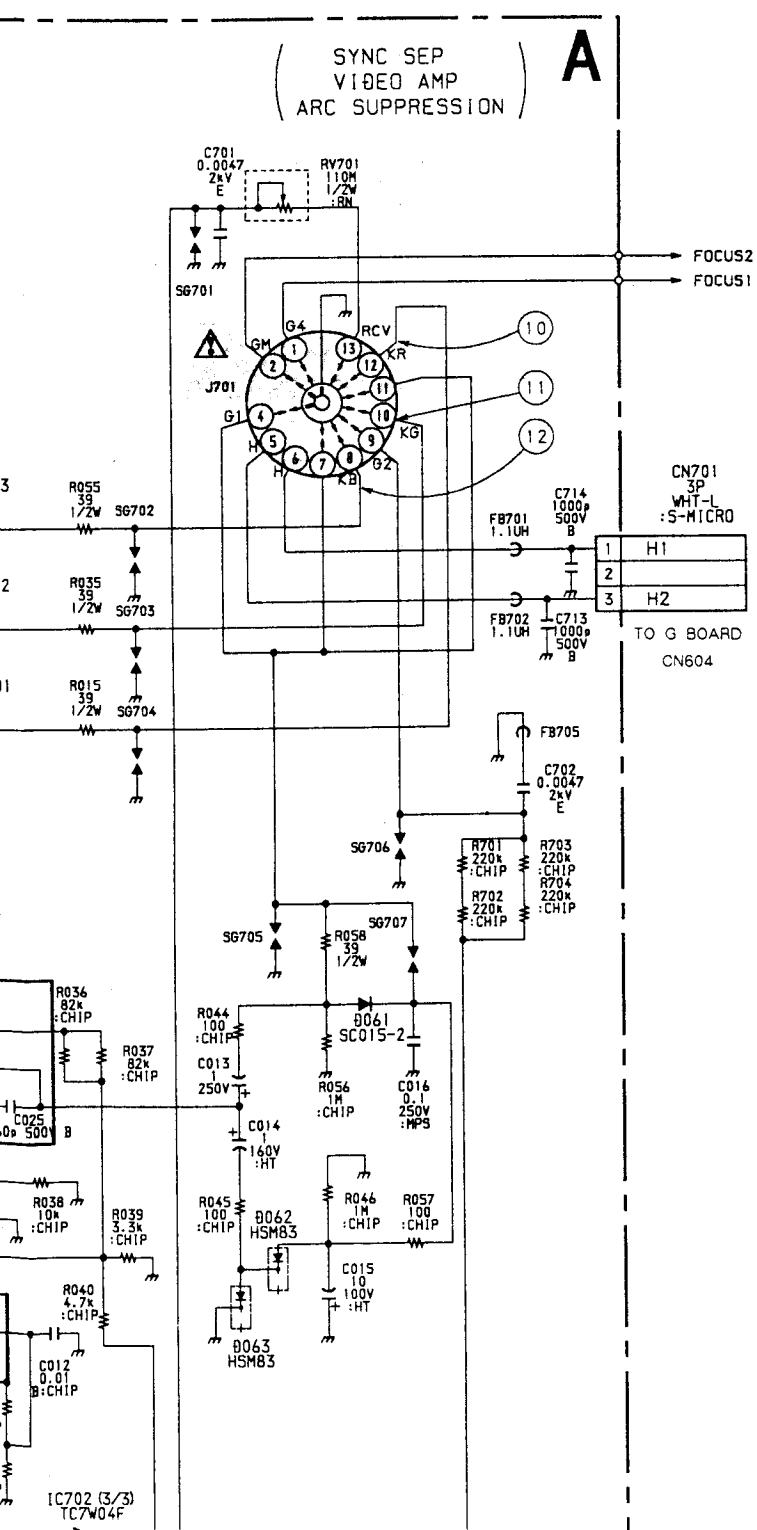
A BOARD WAVEFORMS

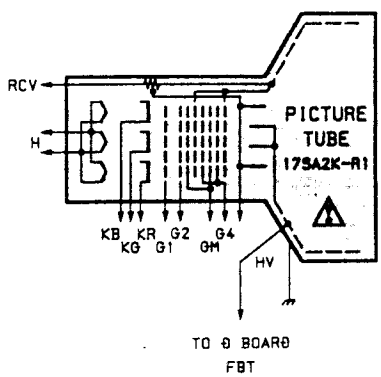
① 1.0 Vp-p (H)	②  45.0 Vp-p (H)	③ 1.0 Vp-p (H)


6
7
8
9
10
11
12
13
[C001
PREAMP
PRE-1
CONTRAST
5V
G DRIVE
B DRIVE
R DRIVE
B-GND
-8V
12V
A-GND
R HOLD
R OUT
R IN
G IN
B IN
J001
J021
J041
L002 0.047μH :CHIP
L022 0.047μH :CHIP
L042 0.047μH :CHIP
R001 150 :RN-CP
R003 150 :RN-CP
R021 150 :RN-CP
R004 150 :RN-CP
R041 150 :RN-CP
R005 150 :RN-CP
C067 47 16V
C005 0.01 B:CHIP
C020 2.2 :MT
C006 10 :MT
C001 100 16V
C021 100 16V
C041 100 16V
C042 0.01 B:CHIP
FB001 102 :CHIP
FB002 102 :CHIP
FB003 102 :CHIP
FB004 102 :CHIP
CN302
11P
WHT-L
:S-MICRO
CLAMP SW 11
CONTRST 10
R DRIVE 9
G DRIVE 8
B DRIVE 7
GND 6
V SYNC 5
C SYNC 4
V POLARITY 3
H POLARITY 2
STBY+12V 1
EMI
FL012 1000P :EMI
FL013 47P :EMI
FL014 47P :EMI
FL015 1000P :EMI
FL016 1000P :EMI
C088 100P
R002 10 :CHIP
R022 220 :CHIP
R023 220 :CHIP
R024 220 :CHIP
TO N BOARD
CN901
C061 0.01 B:CHIP
L003 1mH
C062 0.01 B:CHIP
STBY+12V
CN301
3P
WHT-L
:S-MICRO
TO M BOARD
CN254
C. SYNC 1
GND 2
V. SYNC 3
FL004 47P :EMI
C079 4.7 :MT
R016 100 :CHIP
R378 3.9k :RN-CP
R379 3.9k :RN-CP
FL005 47P :EMI
C080 10 16V :BP
R381 3.9k :RN-CP
R380 3.9k :RN-CP
R017 330 :CHIP
R063 220 :CHIP
CN303
7P
YEL (-L)
:S-MICRO
R-CUTOFF 7
G-CUTOFF 6
B-CUTOFF 5
GND 4
G2 3
FB005 102 :CHIP
FB006 102 :CHIP
FB007 102 :CHIP
FB008 102 :CHIP
R066 220 :CHIP
R065 220 :CHIP
R064 220 :CHIP
STB
+12


IC001
PREAMP
PRE-1
CONTRAST
5V
G DRIVE
B DRIVE
R DRIVE
B-GND
-8V
12V
A-GND
R HOLD
R OUT
R FB
R IN
G HOLD
G OUT
G FB
G IN
B HOLD
B OUT
B FB
B IN
A-GND
CLAMP
-8V
STBY
+12V
+5V
STBY+12V
Q060
2SA1037K
Q011
2SA1037K
Q063
DTC124EK
Q010
2SC3311A
IC009 (4/4)
MC74HC00AF
IC009 (2/4)
MC74HC00AF
IC009 (1/4)
MC74HC00AF
IC009 (3/4)
MC74HC00AF
IC003
CXA1616S
VCC
VB
V IN
V OUT
HB
PV
PH
EV
EH
INEXT
V.REF
VS IN
PVT
EVC
CS IN
PHC
EHC
VIDEO
HD.SEL
M.M
CLAMP
GND
IC007 (1/3)
TC7W04F
IC007 (2/3)
TC7W04F
IC007 (3/3)
TC7W04F
D005
MA153
D006
MA153
D008
MA110
D009
MA110
R-CUTOFF
G-CUTOFF
B-CUTOFF

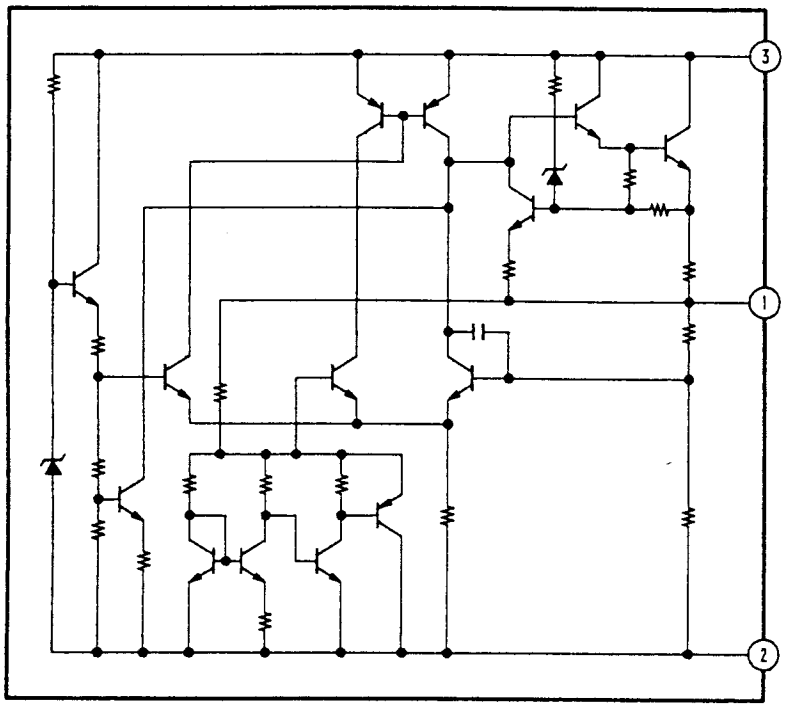

IC002 CR5527
IC010 TDA6101Q
IC011 TDA6101Q
IC012 TDA6101Q
IC013 TDA6101Q
IC009 (2/4) MC74HC00AF
IC009 (1/4) MC74HC00AF
IC009 (3/4) MC74HC00AF
IC007 (1/3) TC7W04F
IC007 (2/3) TC7W04F
IC007 (3/3) TC7W04F
IC008 (4/4) LM3240R-E1
IC008 (3/4) LM3240R-E1
IC008 (2/4) LM3240R-E1
IC702 (3/3) TC7W04F
-8V
+72V
+12V
+8V
R-CUTOFF
G-CUTOFF
B-CUTOFF
TP003
TP002
TP001
SG702
SG703
SG704
SG705
J701
SG701


SYNC SEP
VIDEO AMP
ARC SUPPRESSION
A
C701 0.0047 2kV E
RV701 110M 1/2W :RN
SG701
FOCUS2
FOCUS1
J701
G4
GM
RCV
KR
KG
G1
G2
KB
H
10
11
12
R055 39 1/2W SG702
R035 39 1/2W SG703
R015 39 1/2W SG704
FB701 1.1UH
FB702 1.1UH
C714 1000p 500V B
C713 1000p 500V B
CN701 3P WHT-L :S-MICRO
1 H1
2
3 H2
TO G BOARD
CN604
FB705
C702 0.0047 2kV E
SG706
SG705
SG707
R058 39 1/2W
R701 220k :CHIP
R702 220k :CHIP
R703 220k :CHIP
R704 220k :CHIP
D061 SC015-2
R044 100 :CHIP
C013 1 250V
R056 1M :CHIP
C016 0.1 250V :MPS
C014 1 160V :HT
R045 100 :CHIP
D062 HSM83
R046 1M :CHIP
R057 100 :CHIP
C015 10 100V :HT
D063 HSM83
R036 82k :CHIP
R037 82k :CHIP
C025 500V B
R038 10k :CHIP
R039 3.3k :CHIP
R040 4.7k :CHIP
C012 0.01 B :CHIP
IC702 (3/3) TC7W04F


RCV
H
PICTURE TUBE
17SA2K-A1
KB KR G2 G4
KG G1 GM
HV
TO D BOARD
FBT

R IN
G IN
B IN

A Board IC005 NJM78L05A



A BOARD WAVEFORMS

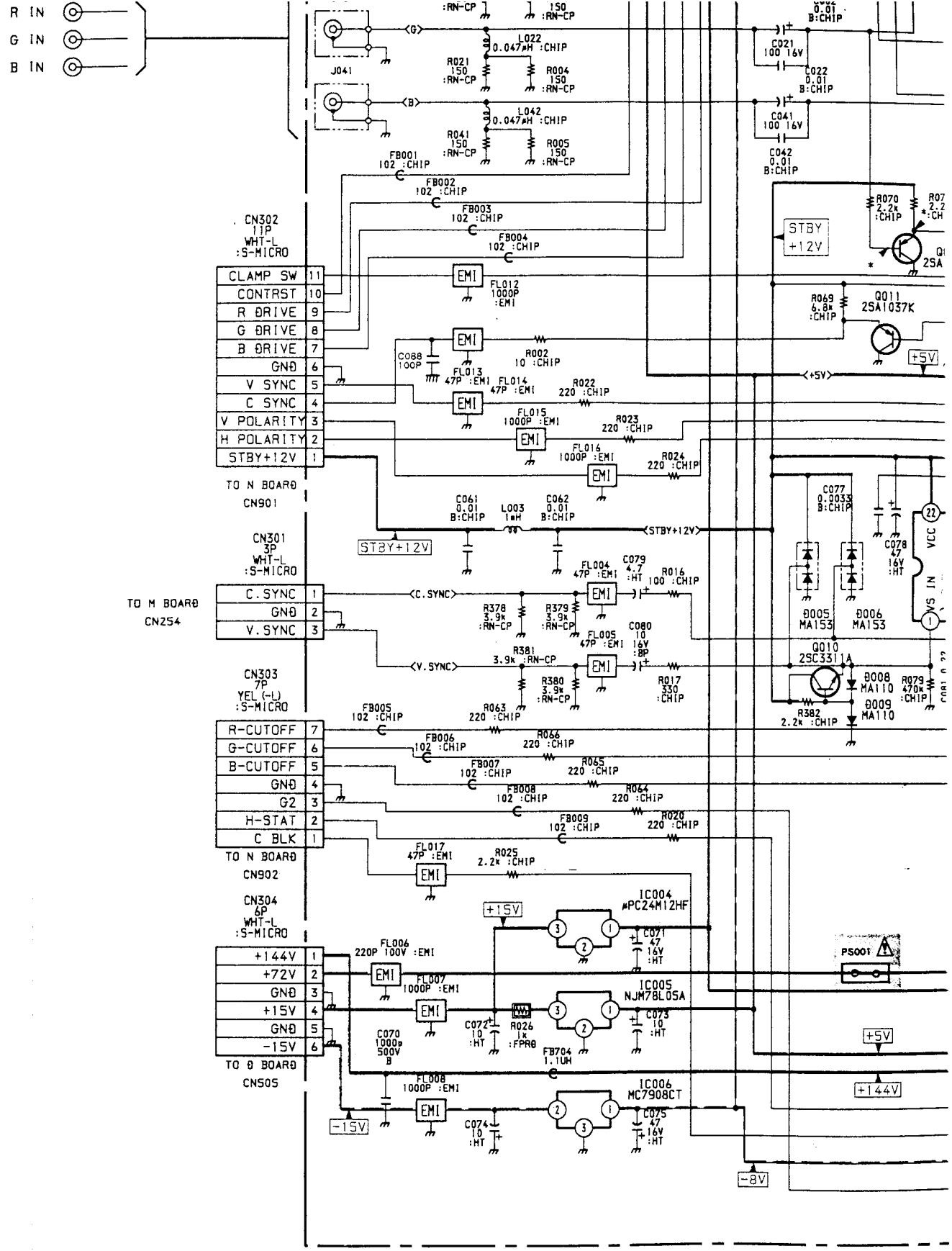
① 1.0 Vp-p (H)	② 45.0 Vp-p (H)	③ 1.0 Vp-p (H)
④ 41.0 Vp-p (H)	⑤ 1.1 Vp-p (H)	⑥ 33.0 Vp-p (H)
⑦ 0.6 Vp-p (H)	⑧ 4.7 Vp-p (H)	⑨ 1.0 Vp-p (H)
⑩ 45.0 Vp-p (H)	⑪ 41.0 Vp-p (H)	⑫ 33.0 Vp-p (H)

Schematic diagrams

← D F boards

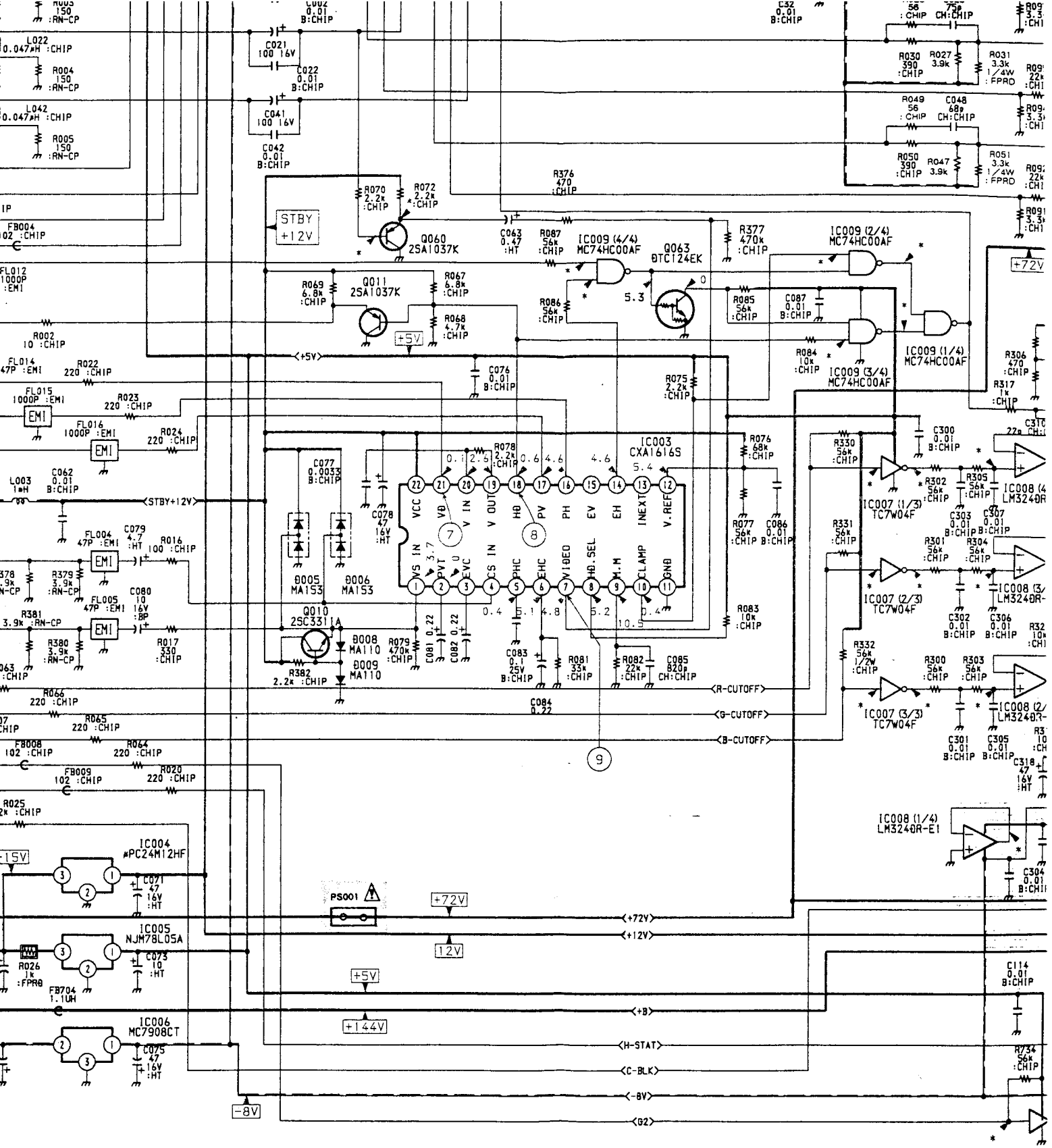
Schematic diagram

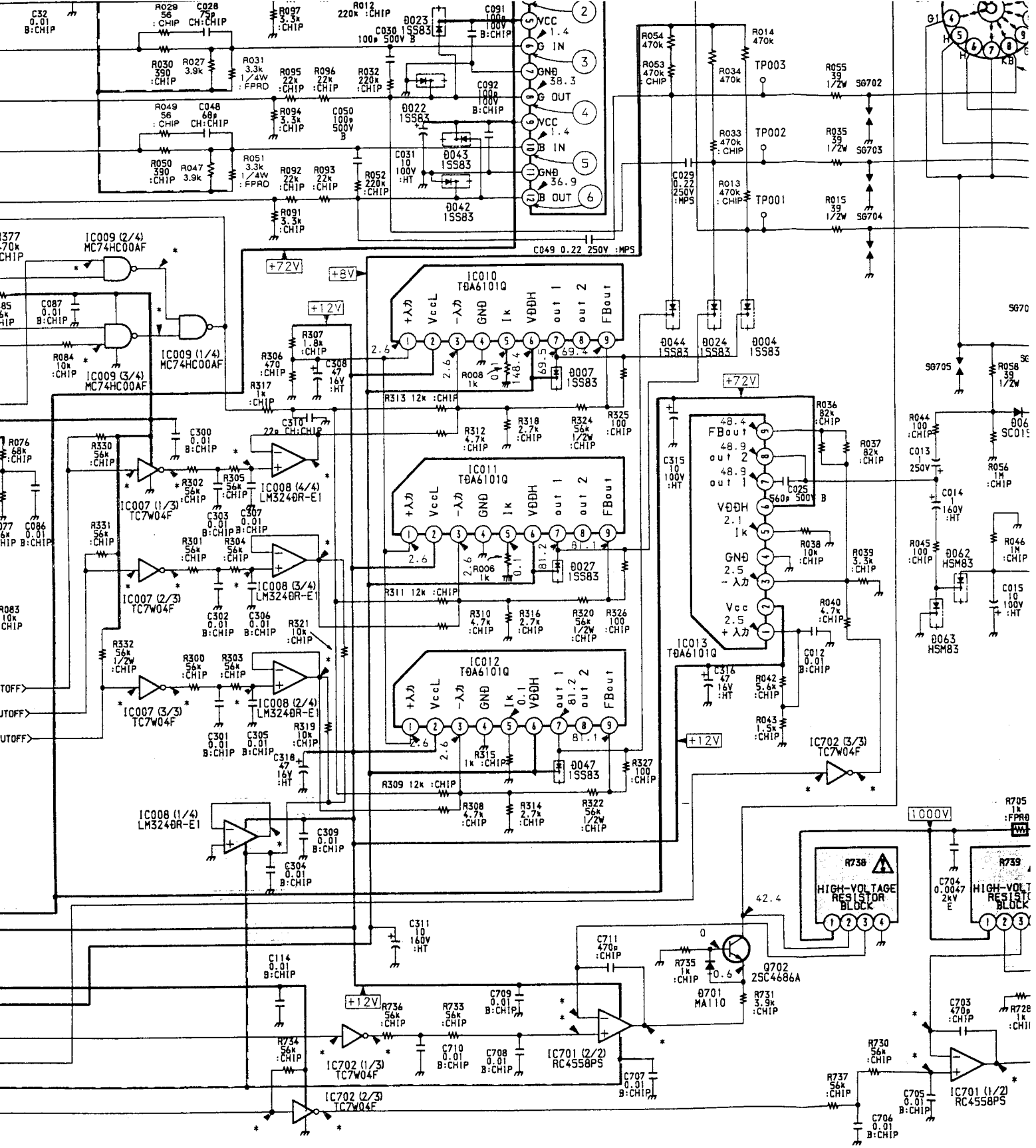
A board →

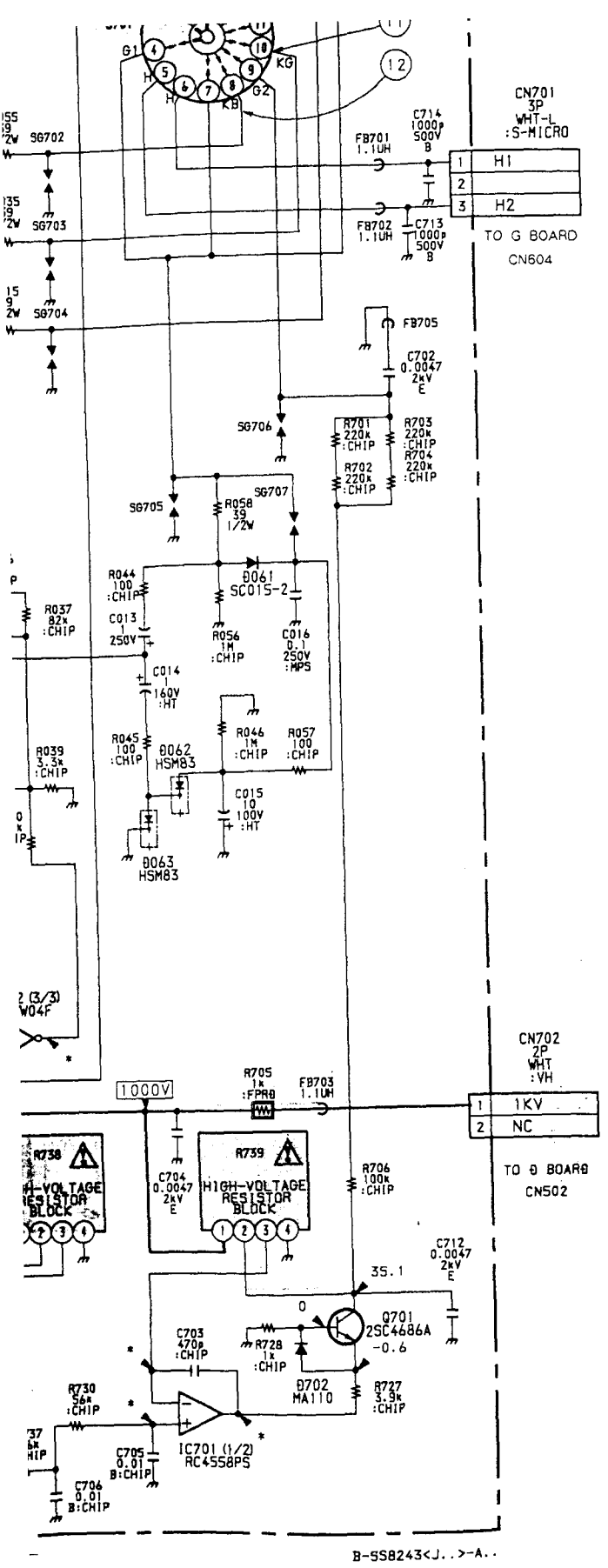


Schematic diagram

A board ➡

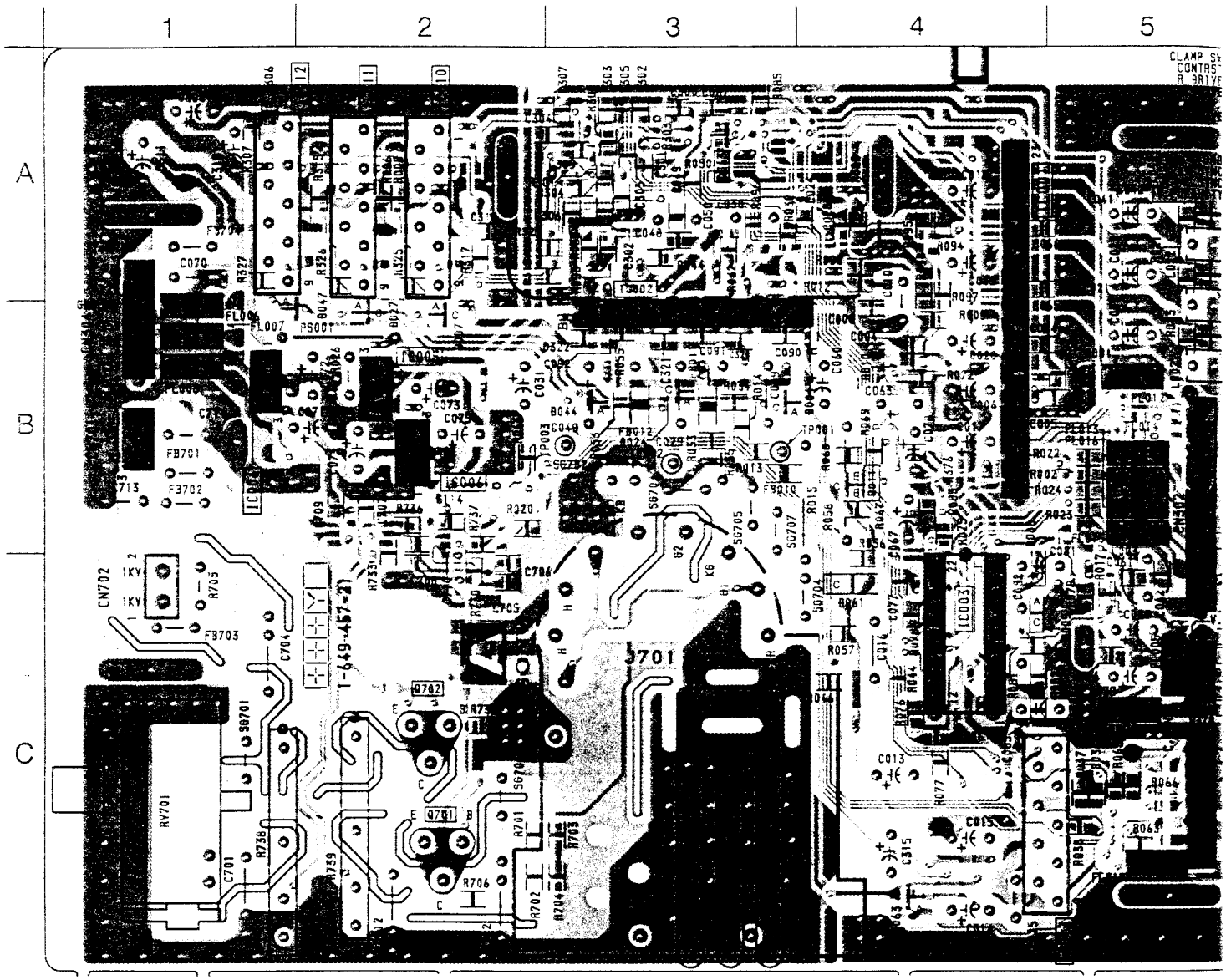

STBY +12V
Q060 2SA1037K
IC009 (4/4) MC74HC00AF
Q063 DTC124EK
IC009 (2/4) MC74HC00AF
IC009 (1/4) MC74HC00AF
IC009 (3/4) MC74HC00AF
Q011 2SA1037K
IC003 CXA1616S
VCC
VB
V IN
V OUT
HB
PV
PH
EV
EH
INEXT
V.REF
VS IN
PVT
EVC
CS IN
PHC
EHC
V16EO
HD.SEL
H.M
CLAMP
GND
IC007 (1/3) TC7W04F
IC007 (2/3) TC7W04F
IC007 (3/3) TC7W04F
IC008 (1/4) LM3240R-E1
Q010 2SC3311A
D005 MA153
D006 MA153
D008 MA110
D009 MA110
IC004 μPC24M12HF
IC005 NJM78L05A
IC006 MC7908CT
PS001
+72V
+12V
+5V
+144V
-15V
-8V
R-CUTOFF
G-CUTOFF
B-CUTOFF
H-STAT
C-BLK
G2
B


IC009 (2/4) MC74HC00AF
IC009 (1/4) MC74HC00AF
IC009 (3/4) MC74HC00AF
IC010 T0A6101Q
IC011 T0A6101Q
IC012 T0A6101Q
IC013 T0A6101Q
IC007 (1/3) TC7W04F
IC007 (2/3) TC7W04F
IC007 (3/3) TC7W04F
IC008 (1/4) LM3240R-E1
IC008 (2/4) LM3240R-E1
IC008 (3/4) LM3240R-E1
IC008 (4/4) LM3240R-E1
IC702 (1/3) TC7W04F
IC702 (2/3) TC7W04F
IC702 (3/3) TC7W04F
IC701 (2/2) RC4558PS
IC701 (1/2) RC4558PS
Q702 2SC4686A
Q701 MA110
HIGH-VOLTAGE RESISTOR BLOCK
+72V
+8V
+12V
1000V
VCC
G IN
GND
G OUT
B IN
B OUT
+入力
-入力
VccL
Ik
VDDH
out 1
out 2
FBout
Vcc
GND
+ 入力
- 入力


FBT
G1
G2
KG
KB
H
CN701
3P
WHT-L
:S-MICRO
1 H1
2
3 H2
TO G BOARD
CN604
C714
1000p
500V
B
FB701
1.1UH
FB702
1.1UH
C713
1000p
500V
B
SG702
SG703
SG704
FB705
C702
0.0047
2kV
E
SG706
SG705
SG707
R701
220k
:CHIP
R702
220k
:CHIP
R703
220k
:CHIP
R704
220k
:CHIP
R058
39
1/2W
D061
SC015-2
R044
100
:CHIP
C013
1
250V
R056
1M
:CHIP
C016
0.1
250V
:MPS
C014
1
160V
:HT
R037
82k
:CHIP
R045
100
:CHIP
D062
HSM83
R046
1M
:CHIP
R057
100
:CHIP
C015
10
100V
:HT
D063
HSM83
R039
3.3k
:CHIP
2 (3/3)
W04F
CN702
2P
WHT
:VH
1 1KV
2 NC
TO θ BOARD
CN502
1000V
R705
1k
:FPRB
FB703
1.1UH
R738
HIGH-VOLTAGE
RESISTOR
BLOCK
R739
HIGH-VOLTAGE
RESISTOR
BLOCK
C704
0.0047
2kV
E
R706
100k
:CHIP
C712
0.0047
2kV
E
35.1
Q701
2SC4686A
-0.6
C703
470p
:CHIP
R728
1k
:CHIP
D702
MA110
R727
3.9k
:CHIP
R730
5k
:CHIP
IC701 (1/2)
RC4558PS
C705
0.01
B:CHIP
C706
0.01
B:CHIP
B-SS8243<J..>-A..

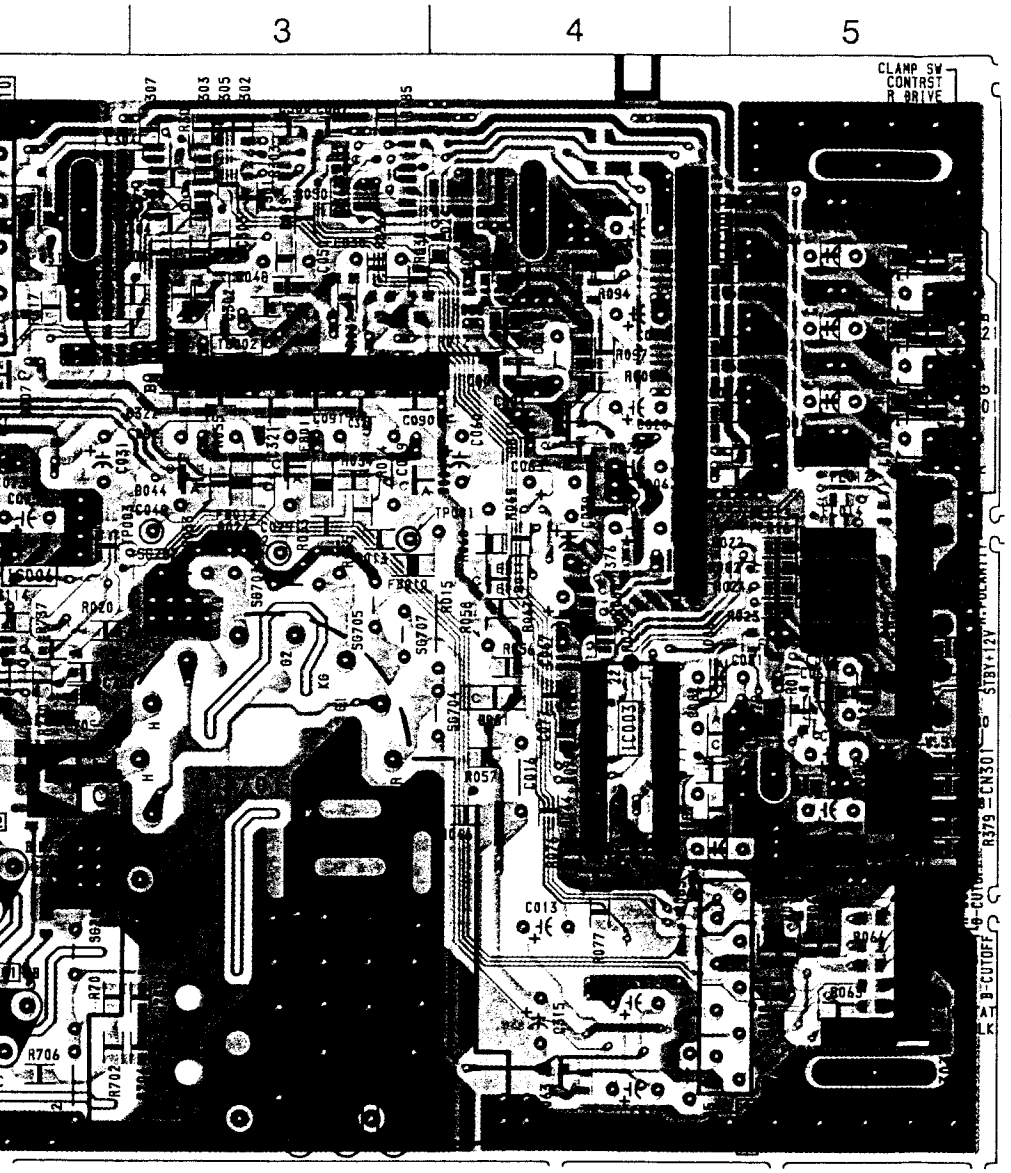
A SYNC SEP
VIDEO AMP
ARC SUPPRESSION

– A Board (Conductor Side) –



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

A SYNC SEP
VIDEO AMP
ARC SUPPRESSION



• **A BOARD**

IC		
	(Conductor Side)	(Component Side)
IC001	B – 4	B – 1
IC002	B – 3	B – 3
IC003	C – 4	
IC004	B – 1	B – 4
IC005	B – 2	B – 4
IC006	B – 2	B – 4
IC007		A – 3
IC008		A – 3
IC009		A – 3
IC010	A – 2	A – 4
IC011	A – 2	A – 4
IC012	A – 1	A – 4
IC013	C – 4	C – 1
IC701		B – 4
IC702		B – 4

TRANSISTOR		
	(Conductor Side)	(Component Side)
Q010		B – 1
Q011	B – 4	
Q060		B – 2
Q063	A – 3	
Q701	C – 2	C – 4
Q702	C – 2	C – 4

DIODE		
	(Conductor Side)	(Component Side)
D002		A – 3
D003		A – 2
D004	B – 3	
D005		C – 1
D006		C – 1
D007	B – 2	
D008	C – 4	
D009	C – 4	
D022		A – 3
D023		A – 3
D024	B – 3	
D027	B – 2	
D042		A – 3
D043		A – 3
D044	B – 3	
D047	B – 1	
D061	C – 4	
D062		C – 2
D063	C – 4	
D701		C – 4
D702		C – 4

VARIABLE RESISTOR		
	(Conductor Side)	(Component Side)
RV701	C – 1	C – 5

• A BOARD

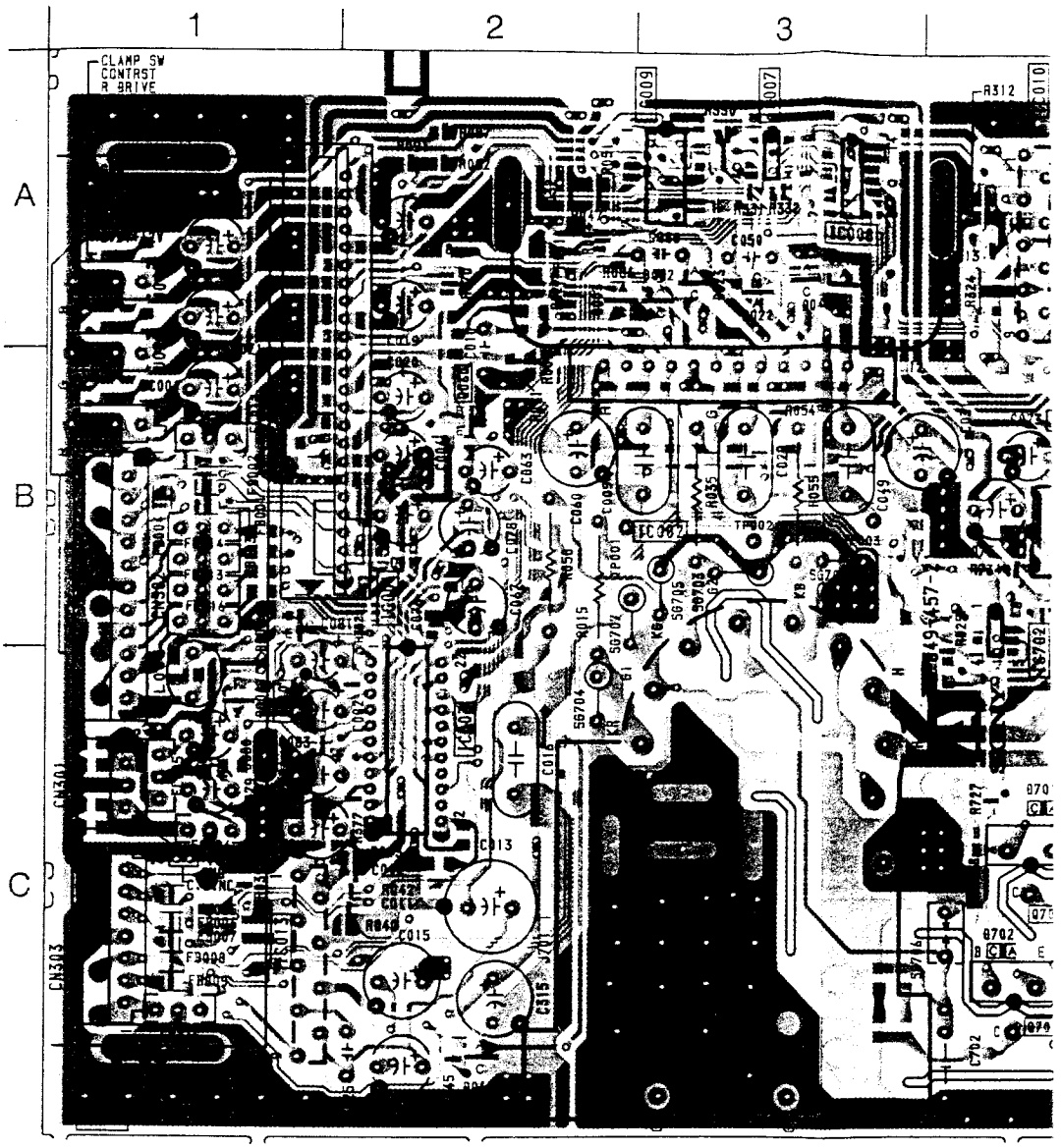
IC		
	(Conductor Side)	(Component Side)
IC001	B – 4	B – 1
IC002	B – 3	B – 3
IC003	C – 4	
IC004	B – 1	B – 4
IC005	B – 2	B – 4
IC006	B – 2	B – 4
IC007		A – 3
IC008		A – 3
IC009		A – 3
IC010	A – 2	A – 4
IC011	A – 2	A – 4
IC012	A – 1	A – 4
IC013	C – 4	C – 1
IC701		B – 4
IC702		B – 4

TRANSISTOR		
	(Conductor Side)	(Component Side)
Q010		B – 1
Q011	B – 4	
Q060		B – 2
Q063	A – 3	
Q701	C – 2	C – 4
Q702	C – 2	C – 4

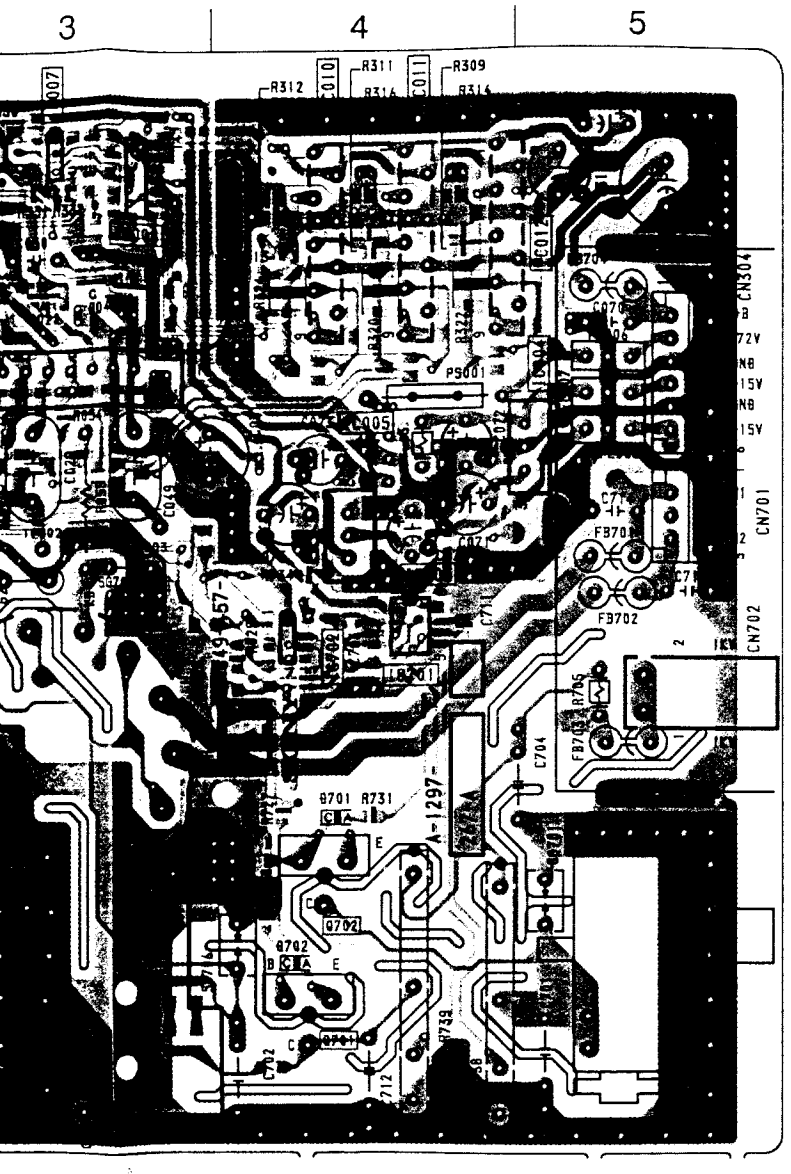
DIODE		
	(Conductor Side)	(Component Side)
D002		A – 3
D003		A – 2
D004	B – 3	
D005		C – 1
D006		C – 1
D007	B – 2	
D008	C – 4	
D009	C – 4	
D022		A – 3
D023		A – 3
D024	B – 3	
D027	B – 2	
D042		A – 3
D043		A – 3
D044	B – 3	
D047	B – 1	
D061	C – 4	
D062		C – 2
D063	C – 4	
D701		C – 4
D702		C – 4

VARIABLE RESISTOR		
	(Conductor Side)	(Component Side)
RV701	C – 1	C – 5

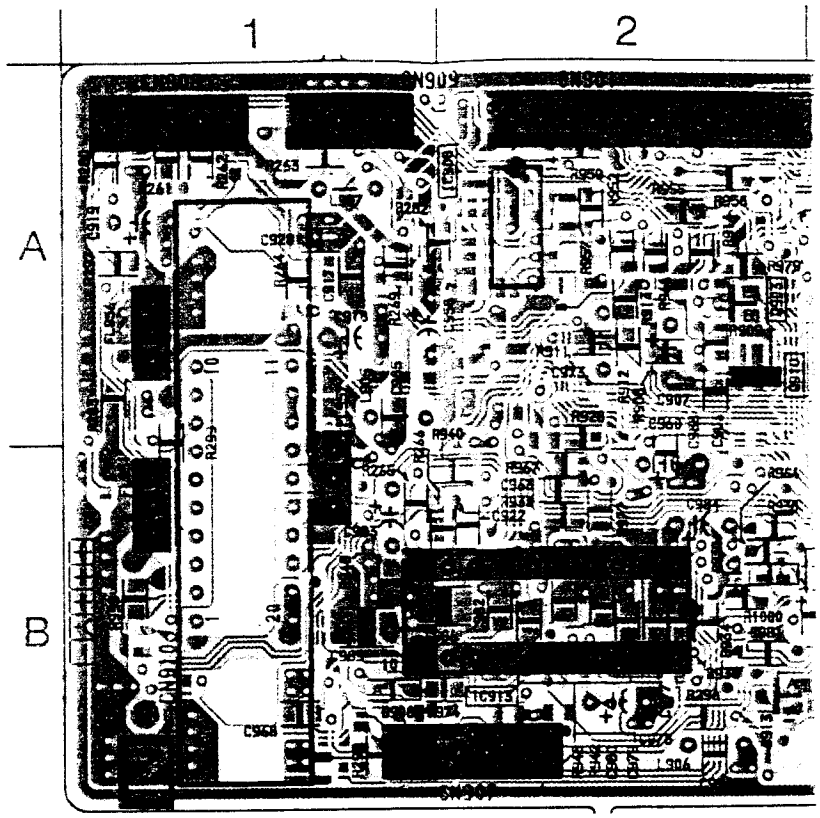
– A Board (Component Side) –



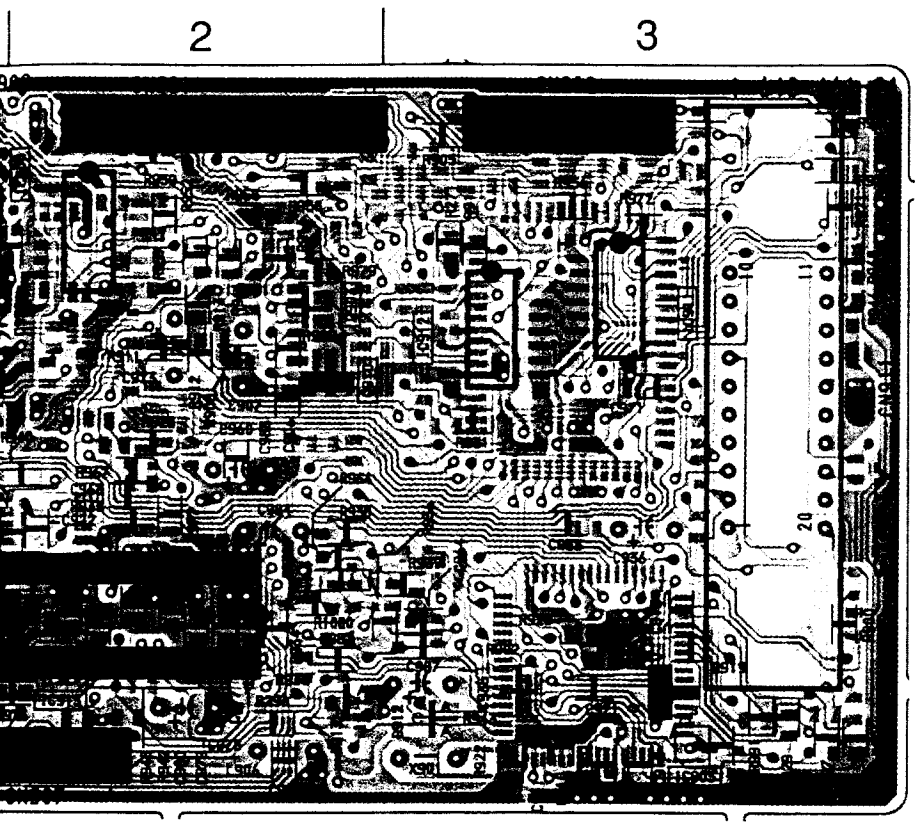
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.


3
4
5
R311
R309
R312
PS001
CN304
CN701
CN702
FB701
FB702
Q701
R731
Q702
C704
A-1297-

– N Board (Conductor Side) –



- : Pattern from the side which enables seeing.
- : Pattern of the rear side.



s seeing.

• **N BOARD**

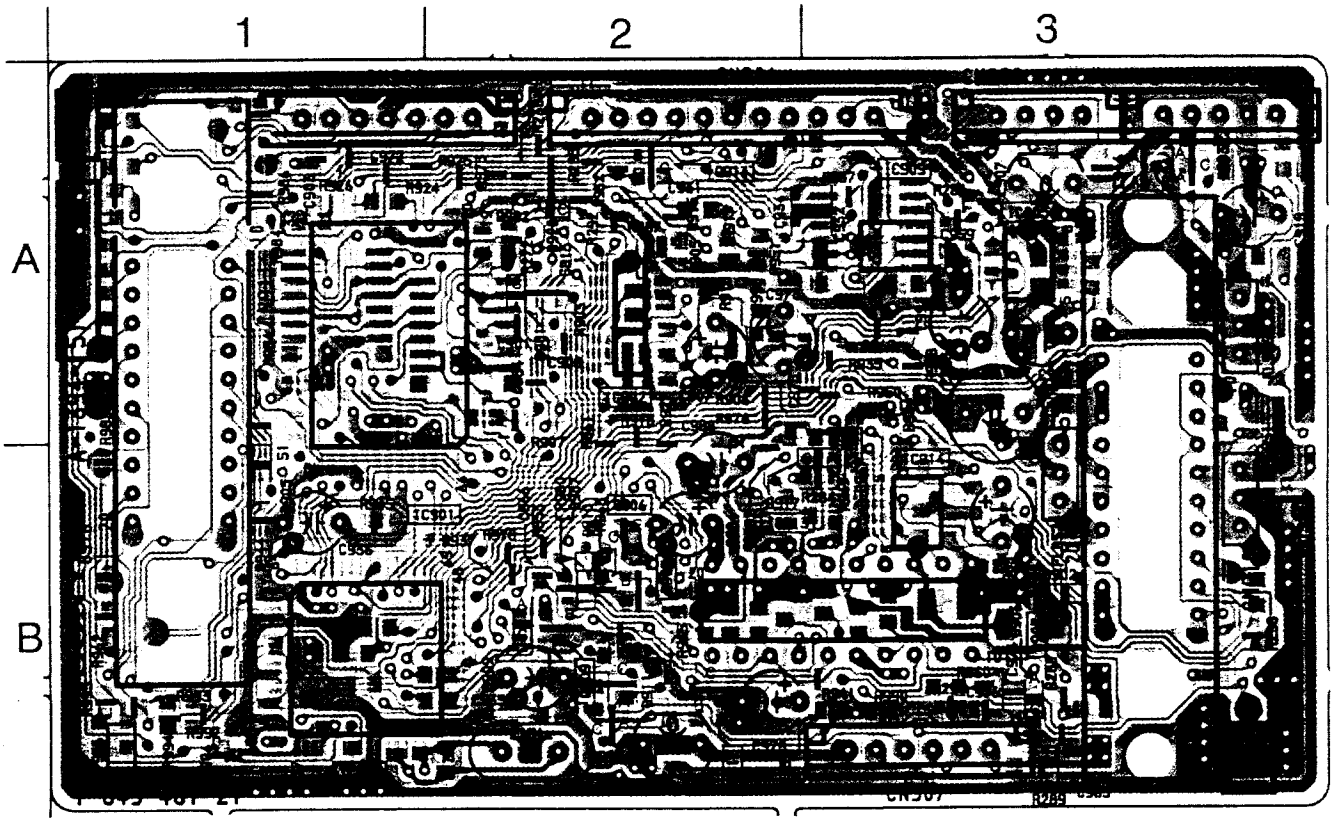
IC		
	(Conductor Side)	(Component Side)
IC901		A – 1
IC902		A – 2
IC903	B – 3	
IC904		B – 1
IC905		A – 3
IC908	A – 2	
IC909		A – 3
IC911	A – 3	
IC912	A – 3	
IC913	B – 2	B – 2
IC914		B – 3

TRANSISTOR		
	(Conductor Side)	(Component Side)
Q903	A – 2	
Q905		B – 2
Q906	B – 2	
Q907		B – 3
Q909		B – 2
Q910	A – 2	
Q912		B – 2

DIODE		
	(Conductor Side)	(Component Side)
D901		A – 2
D902		B – 3
D903		A – 3
D904		A – 3
D905		B – 1
D906		B – 3
D907		B – 2
D908	B – 1	
D909		B – 2
D910		B – 2
D911		B – 2
D912	B – 3	
D913	B – 2	
D914		B – 2
D915		B – 3
D917		B – 3
D920		A – 2

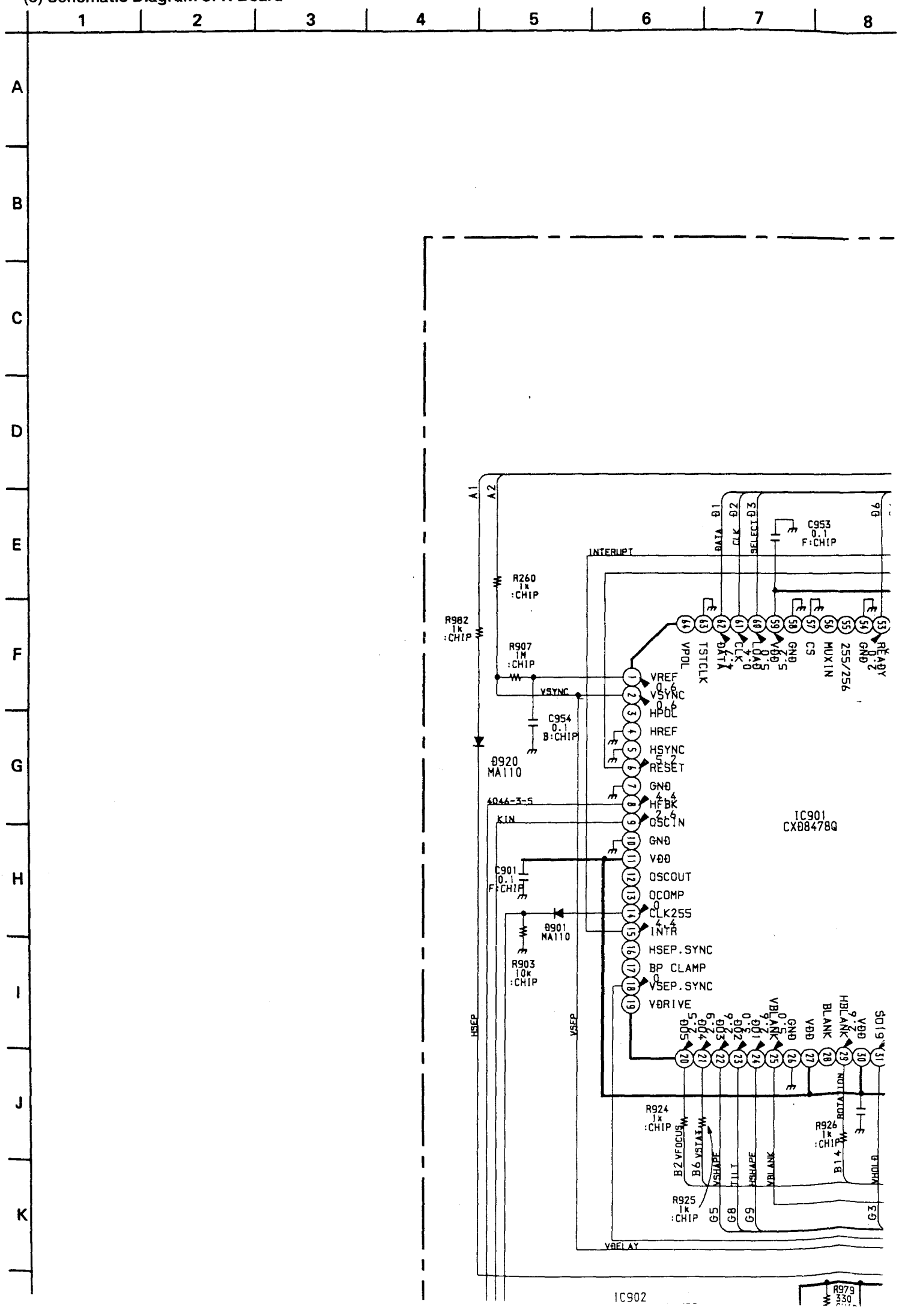
CRYSTAL		
	(Conductor Side)	(Component Side)
X901	B – 3	B – 2

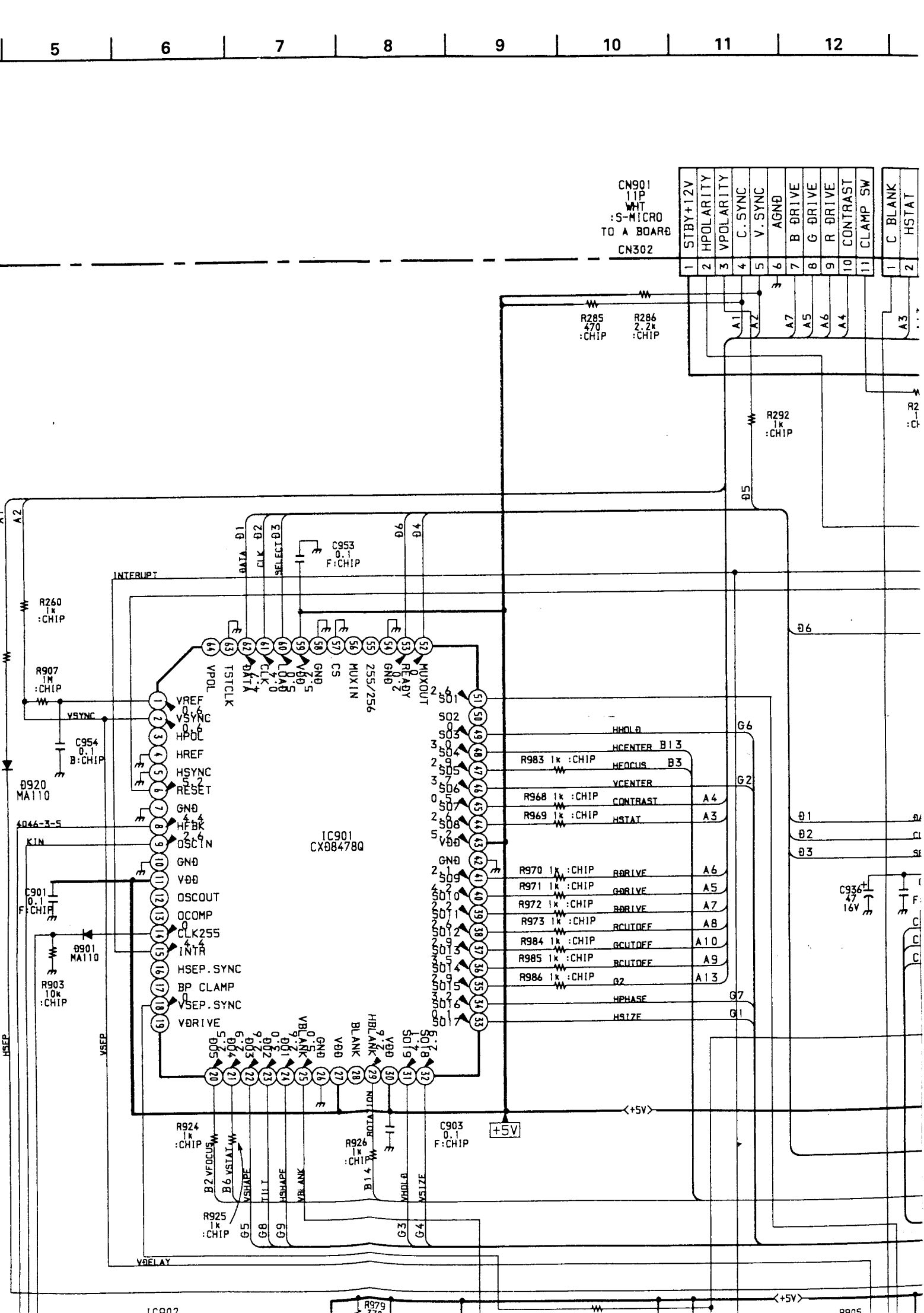
– N Board (Component Side) –

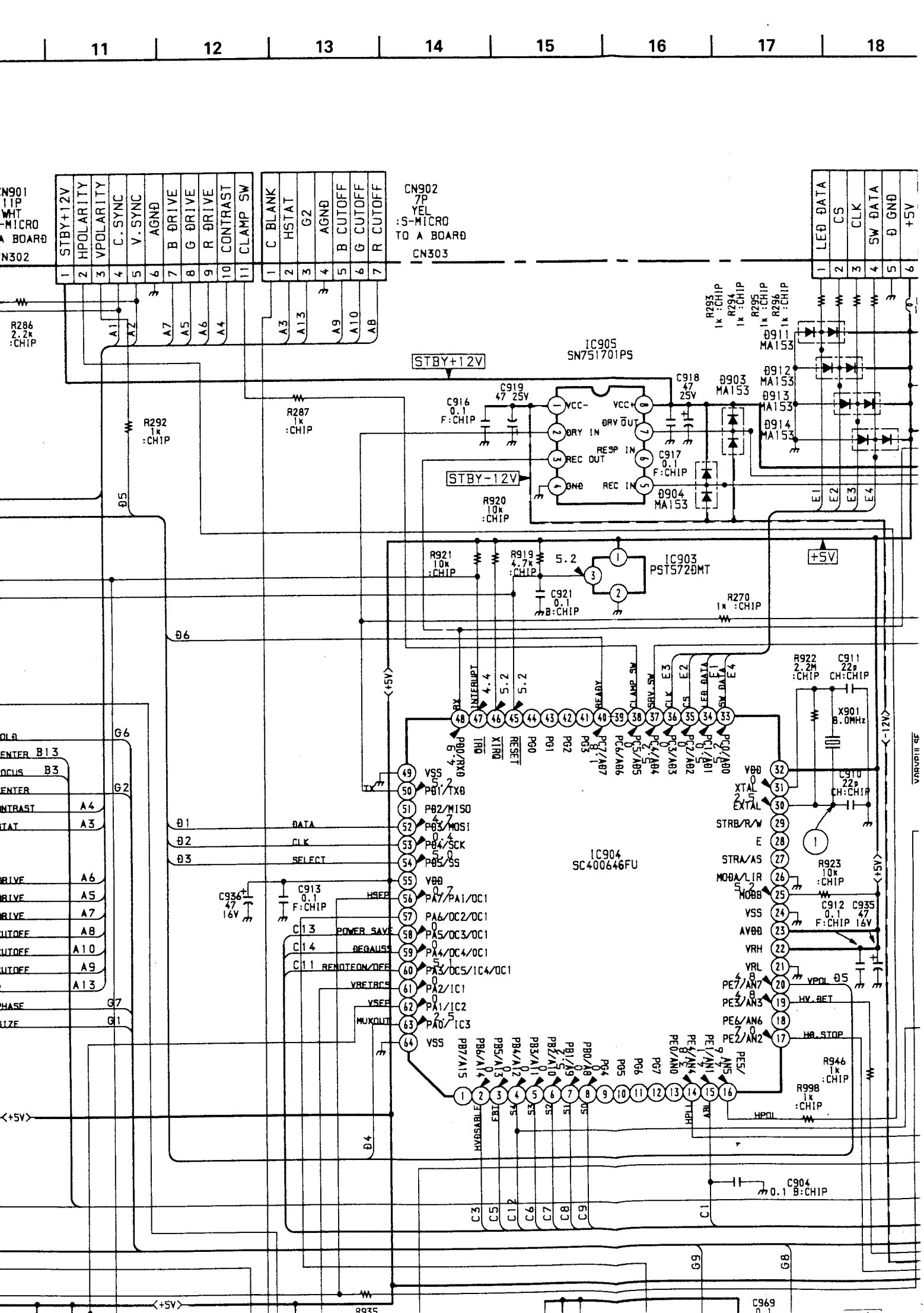


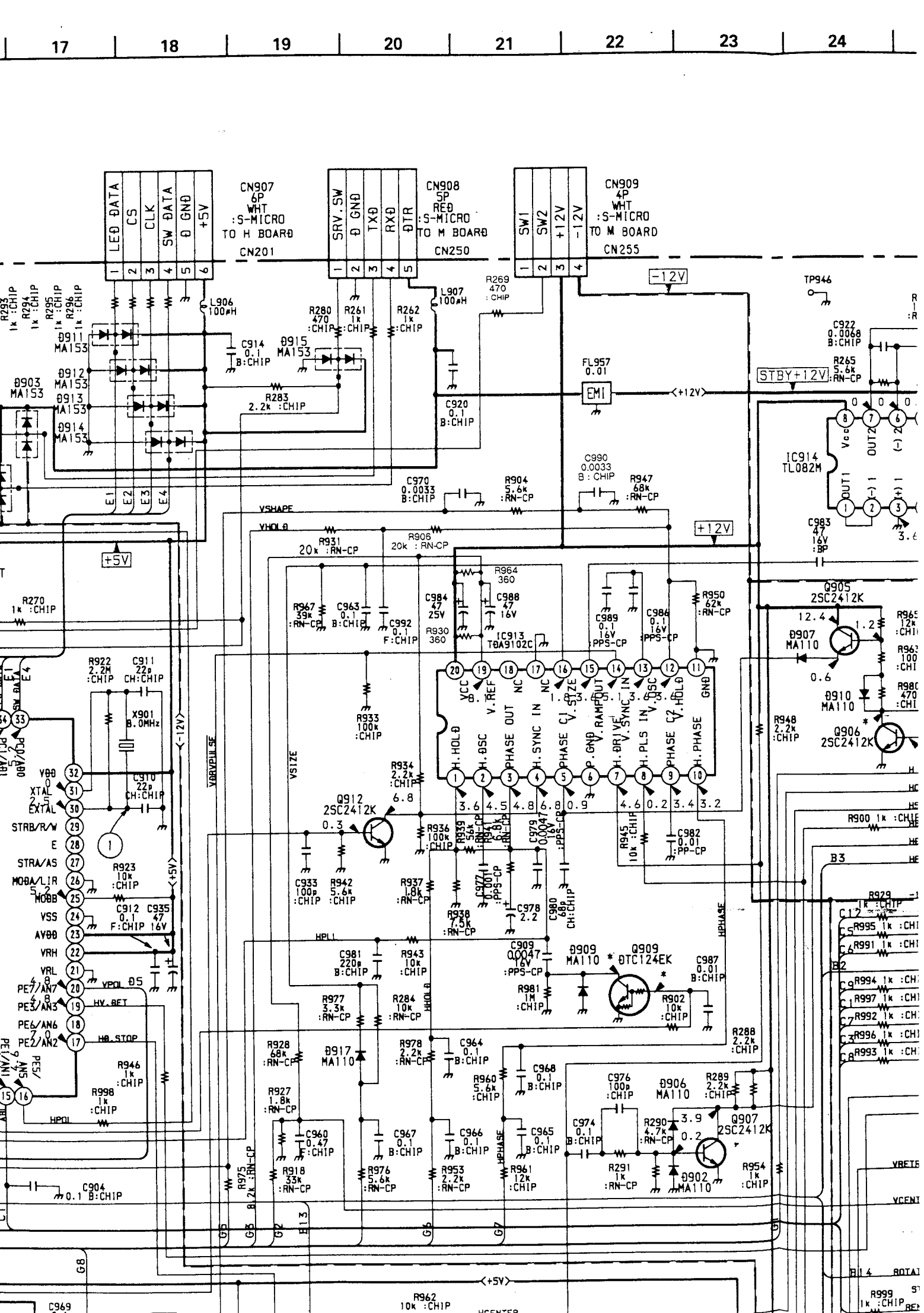
- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

(3) Schematic Diagram of N Board

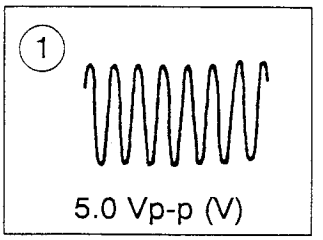


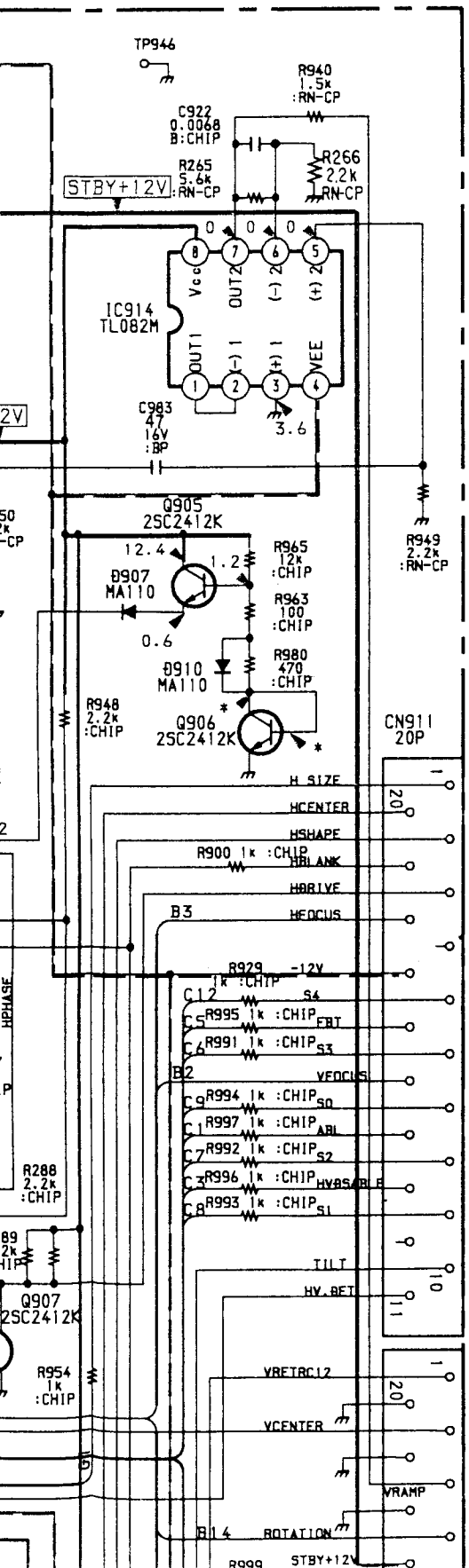

5
6
7
8
9
10
11
12
CN901
11P
WHT
:S-MICRO
TO A BOARD
CN302
STBY+12V
HPOLARITY
VPOLARITY
C.SYNC
V.SYNC
AGND
B DRIVE
G DRIVE
R DRIVE
CONTRAST
CLAMP SW
C BLANK
HSTAT
R285 470 :CHIP
R286 2.2K :CHIP
R292 1K :CHIP
C953 0.1 F:CHIP
INTERUPT
R260 1K :CHIP
R907 1M :CHIP
VSYNC
C954 0.1 B:CHIP
D920 MA110
4046-3-5
KIN
C901 0.1 F:CHIP
D901 MA110
R903 10K :CHIP
IC901 CX08478Q
VREF
VSYNC
HPOL
HREF
HSYNC
RESET
GND
HFBK
OSCIN
GND
VDD
OSCOUT
OCOMP
CLK255
INTR
HSEP.SYNC
BP CLAMP
VSEP.SYNC
VDRIVE
VPOL
TSTCLK
DATA
CLK
LOAD
VDD
GND
CS
MUXIN
255/256
READY
GND
MUXOUT
SO1
SO2
SO3
SO4
SO5
SO6
SO7
SO8
VDD
GND
SO9
SO10
SO11
SO12
SO13
SO14
SO15
SO16
SO17
SO18
SO19
HBLANK
VDD
BLANK
VDD
GND
VBLANK
SO20
SO21
SO22
SO23
SO24
SO25
SO26
SO27
SO28
SO29
SO30
SO31
SO32
HHOLD
HCENTER
HFOCUS
VCENTER
CONTRAST
HSTAT
RDRIVE
GDRIVE
BDRIVE
RCUTOFF
GCUTOFF
BCUTOFF
B2
HPHASE
HSIZE
R983 1K :CHIP
R968 1K :CHIP
R969 1K :CHIP
R970 1K :CHIP
R971 1K :CHIP
R972 1K :CHIP
R973 1K :CHIP
R984 1K :CHIP
R985 1K :CHIP
R986 1K :CHIP
B13
B3
A4
A3
A6
A5
A7
A8
A10
A9
A13
G6
G2
G7
G1
D1
D2
D3
D5
D6
C936 47 16V
+5V
R924 1K :CHIP
R926 1K :CHIP
R925 1K :CHIP
C903 0.1 F:CHIP
VFOCUS
VSHAPE
TILT
HSHAPE
VBLANK
VHOLD
VSIZE
B6
B1
G5
G8
G9
G3
G4
VDELAY
HSEP
VSEP
IC902
R979
R905

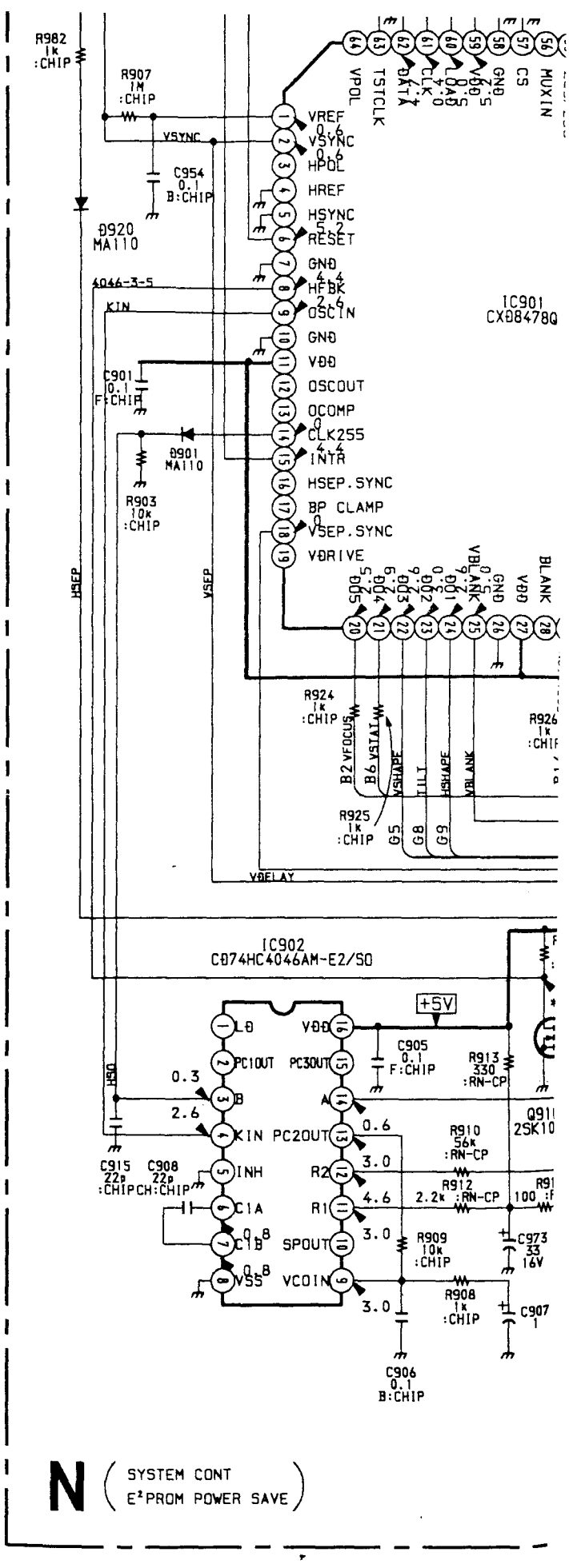

11
12
13
14
15
16
17
18
CN902
7P
YEL
:S-MICRO
TO A BOARD
CN303
STBY+12V
HPOLARITY
VPOLARITY
C.SYNC
V.SYNC
AGND
B DRIVE
G DRIVE
R DRIVE
CONTRAST
CLAMP SW
C BLANK
HSTAT
G2
AGND
B CUTOFF
G CUTOFF
R CUTOFF
LED DATA
CS
CLK
SW DATA
D GND
+5V
IC905
SN751701PS
STBY-12V
IC903
PST5720MT
IC904
SC400646FU
X901
8.0MHz
R286
2.2k
:CHIP
R287
1k
:CHIP
R292
1k
:CHIP
R920
10k
:CHIP
R921
10k
:CHIP
R919
4.7k
:CHIP
R270
1k :CHIP
R922
2.2M
:CHIP
R923
10k
:CHIP
R946
1k
:CHIP
R998
1k
:CHIP
C916
0.1
F:CHIP
C917
0.1
F:CHIP
C918
47
25V
C919
47 25V
C921
0.1
B:CHIP
C911
22p
CH:CHIP
C910
22p
CH:CHIP
C912
0.1
F:CHIP
C935
47
16V
C936
47
16V
C913
0.1
F:CHIP
C904
0.1 B:CHIP
D903
MA153
D904
MA153
D911
MA153
D912
MA153
D913
MA153
D914
MA153
DATA
CLK
SELECT
HSEP
POWER SAVE
DEGAUSS
REMOTEON/OFF
VRETRCS
VSEP
MUXOUT
VPOL
HV.DET
H0.STOP
HPOL
+5V
-12V

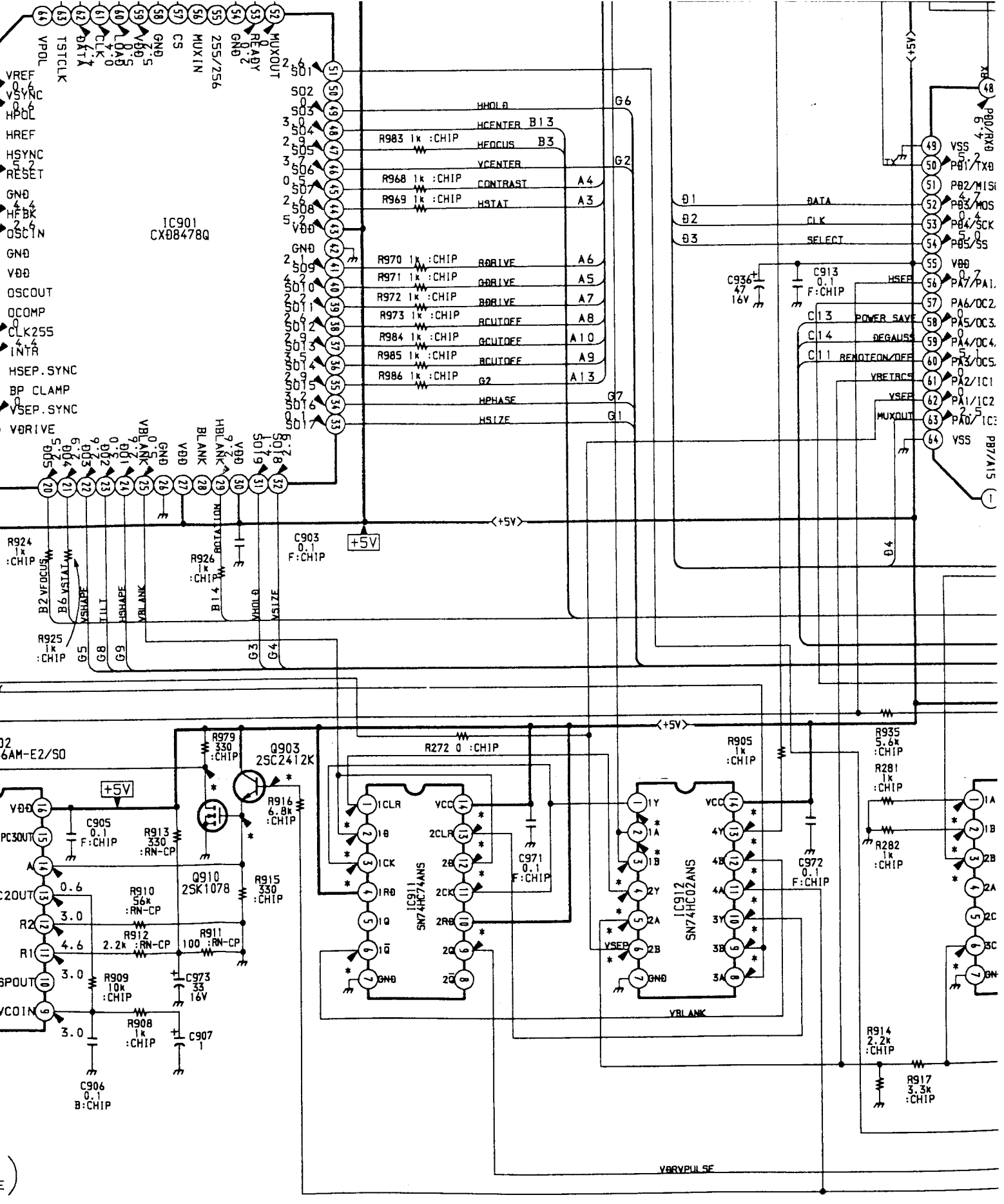

17
18
19
20
21
22
23
24
CN907
6P
WHT
:S-MICRO
TO H BOARD
CN201
LED DATA
CS
CLK
SW DATA
G GND
+5V
CN908
5P
RED
:S-MICRO
TO M BOARD
CN250
SRV.SW
G GND
TXD
RXD
DTR
CN909
4P
WHT
:S-MICRO
TO M BOARD
CN255
SW1
SW2
+12V
-12V
-12V
+12V
STBY+12V
+5V
VSHAPE
VHOLD
VSIZE
VDRVPULSE
HPLL
HPHASE
HPOL
HV.SET
HD.STOP
VPOL
IC913
T0A9102C
IC914
TL082M
Q905
2SC2412K
Q906
2SC2412K
Q907
2SC2412K
Q909
DTC124EK
Q912
2SC2412K
X901
8.0MHz
FL957
0.01
EMI
TP946
L906
100μH
L907
100μH
R269
470
:CHIP
R280
470
:CHIP
R261
1k
R262
1k
:CHIP
R283
2.2k :CHIP
C914
0.1
B:CHIP
C920
0.1
B:CHIP
C922
0.0068
B:CHIP
R265
5.6k
:RN-CP
C990
0.0033
B:CHIP
R947
68k
:RN-CP
C970
0.0033
B:CHIP
R904
5.6k
:RN-CP
R931
20k :RN-CP
R906
20k :RN-CP
R964
360
R930
360
C984
47
25V
C988
47
16V
C963
0.1
B:CHIP
C992
0.1
F:CHIP
R967
39k
:RN-CP
C989
0.1
16V
:PPS-CP
C986
0.1
16V
:PPS-CP
R950
62k
:RN-CP
R933
100k
:CHIP
R934
2.2k
:CHIP
R936
100k
:CHIP
R939
56k
:RN-CP
R941
5.6k
:RN-CP
C979
0.00047
16V
:PPS-CP
C982
0.01
:PP-CP
R945
10k :CHIP
R948
2.2k
:CHIP
C933
100p
:CHIP
R942
5.6k
:CHIP
R937
1.8k
:RN-CP
R938
7.5k
:RN-CP
C977
0.001
:PPS-CP
C978
2.2
C980
68p
CH:CHIP
R922
2.2M
:CHIP
C911
22p
CH:CHIP
C910
22p
CH:CHIP
R923
10k
:CHIP
C912
0.1
F:CHIP
C935
47
16V
R943
10k
:CHIP
C981
220p
B:CHIP
C909
0.0047
16V
:PPS-CP
D909
MA110
R981
1M
:CHIP
R902
10k
:CHIP
C987
0.01
B:CHIP
R977
3.3k
:RN-CP
R284
10k
:RN-CP
R928
68k
:RN-CP
D917
MA110
R978
2.2k
:RN-CP
C964
0.1
B:CHIP
R927
1.8k
:RN-CP
R960
5.6k
:CHIP
C968
0.1
B:CHIP
R288
2.2k
:CHIP
C976
100p
:CHIP
D906
MA110
R289
2.2k
:CHIP
C974
0.1
B:CHIP
R290
4.7k
:RN-CP
R291
1k
:RN-CP
D902
MA110
R954
1k
:CHIP
C960
0.47
F:CHIP
C967
0.1
B:CHIP
C966
0.1
B:CHIP
C965
0.1
B:CHIP
R918
33k
:RN-CP
R976
5.6k
:RN-CP
R953
2.2k
:RN-CP
R961
12k
:CHIP
R975
8.2k :RN-CP
R946
1k
:CHIP
R998
1k
:CHIP
C904
0.1 B:CHIP
R962
10k :CHIP
C969
D903
MA153
D911
MA153
D912
MA153
D913
MA153
D914
MA153
D915
MA153
R293
1k :CHIP
R294
1k :CHIP
R295
1k :CHIP
R296
1k :CHIP
R270
1k :CHIP
E1
E2
E3
E4
SW DATA
PD0/AD0
PD1/AD1
PD2/AD2
PD3/AD3
PD4/AD4
PD5/AD5
PD6/AD6
PD7/AD7
PE0/AN4
PE1/AN5
PE2/AN2
PE3/AN3
PE4/AN6
PE5/AN7
PE6/AN6
PE7/AN7
VDD
XTAL
EXTAL
STRB/R/W
E
STRA/AS
MODA/LIR
MODB
VSS
AVDD
VRH
VRL
VPOL
HV.SET
HD.STOP
HPOL
VCC
V.REF
NC
NC
V.SAW
V.RAMP OUT
V.SYNC IN
V.OSC
V.HOLD
GND
H.HOLD
H.OSC
PHASE OUT
H.SYNC IN
PHASE CI
P.GND
H.DRIVE
H.PLS IN
PHASE CO
H.PHASE
Vcc
OUT2
(-) 2
OUT1
(-) 1
(+) 1
C983
47
16V
:BP
R269
470
:CHIP
R964
360
R930
360
R288
2.2k
:CHIP
R289
2.2k
:CHIP
R954
1k
:CHIP
R962
10k :CHIP
R999
1k :CHIP

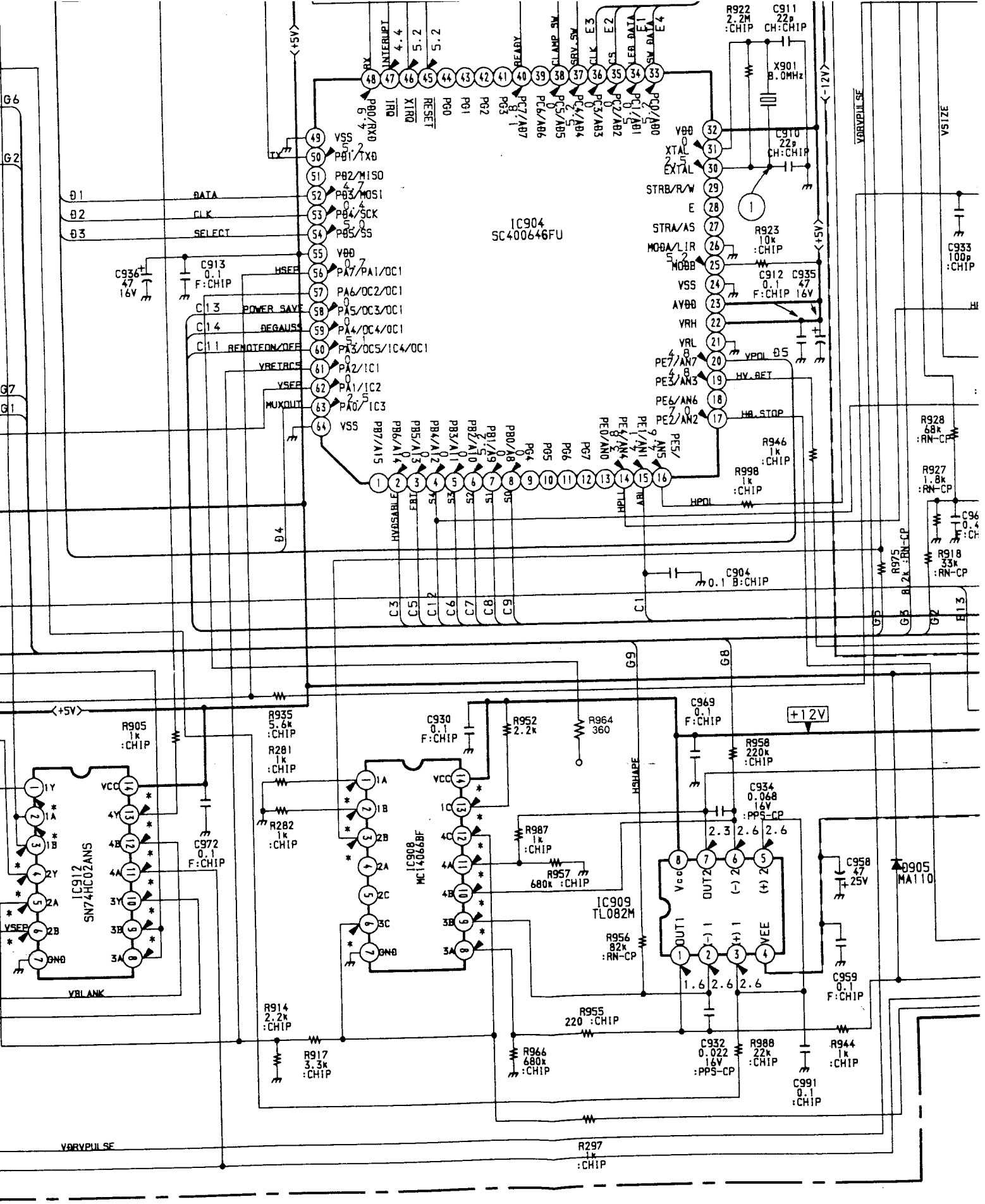
N BOARD WAVEFORM

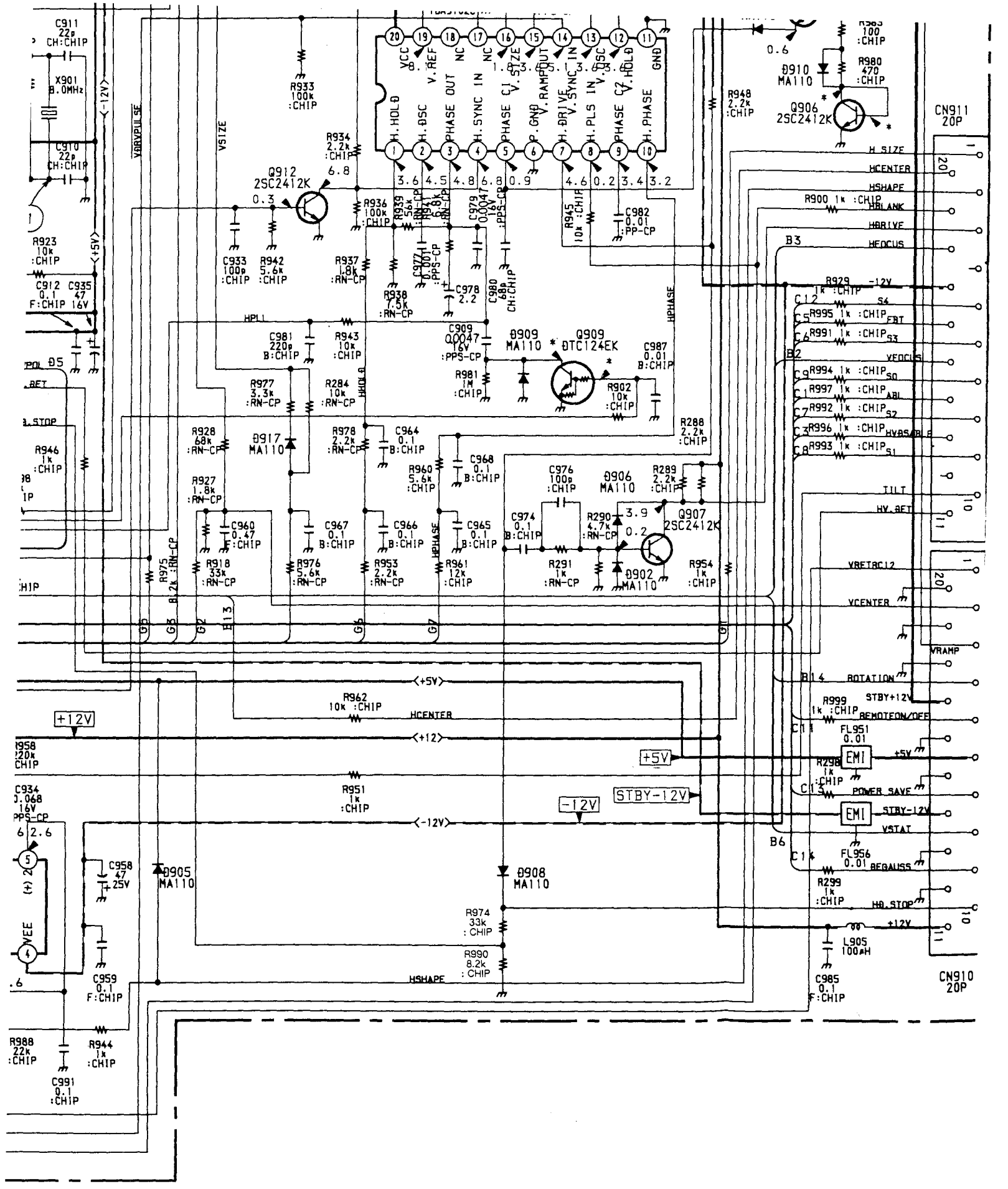


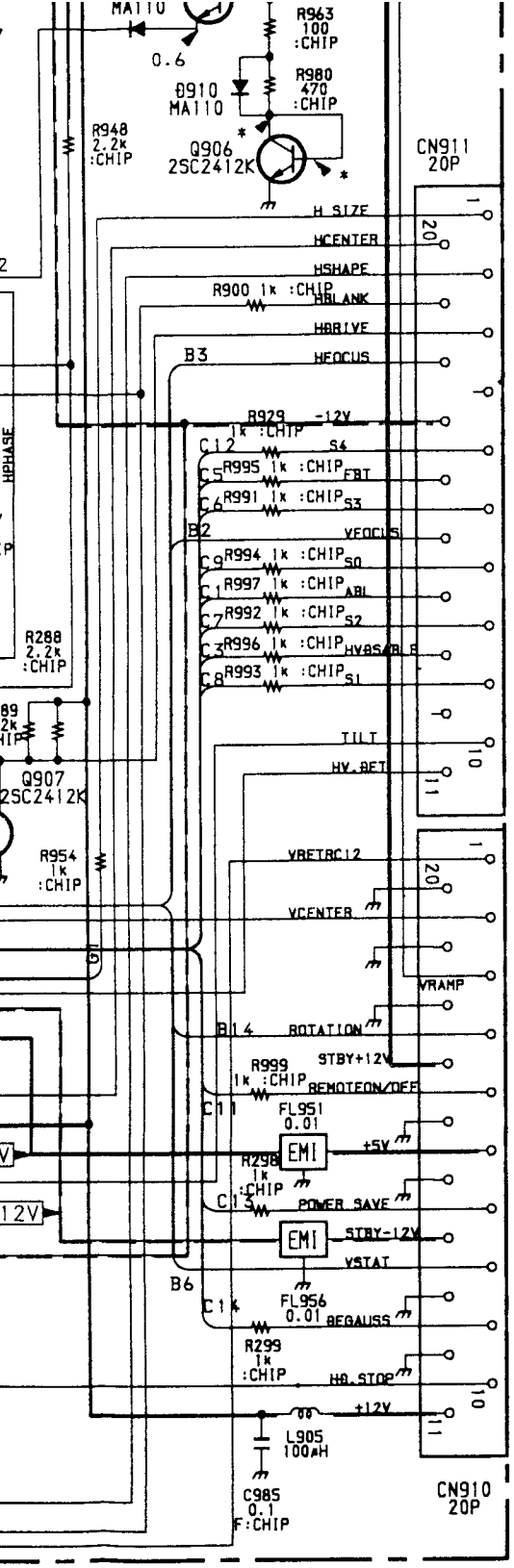



IC901
CXD8478Q
IC902
C074HC4046AM-E2/SO
+5V
R982 1k :CHIP
R907 1M :CHIP
C954 0.1 B:CHIP
D920 MA110
D901 MA110
R903 10k :CHIP
C901 0.1 F:CHIP
R924 1k :CHIP
R925 1k :CHIP
R926 1k :CHIP
C905 0.1 F:CHIP
R913 330 :RN-CP
R910 56k :RN-CP
R912 2.2k :RN-CP
R909 10k :CHIP
R908 1k :CHIP
C906 0.1 B:CHIP
C907 1
C908 22p CH:CHIP
C915 22p :CHIP
C973 33 16V
VSYNC
HSEP
VSEP
VDELAY
VPOL
TSTCLK
MUXIN
CS
BLANK
VFOCUS
VSTART
HSHAPE
TILT
VBLANK
SYSTEM CONT
E²PROM POWER SAVE

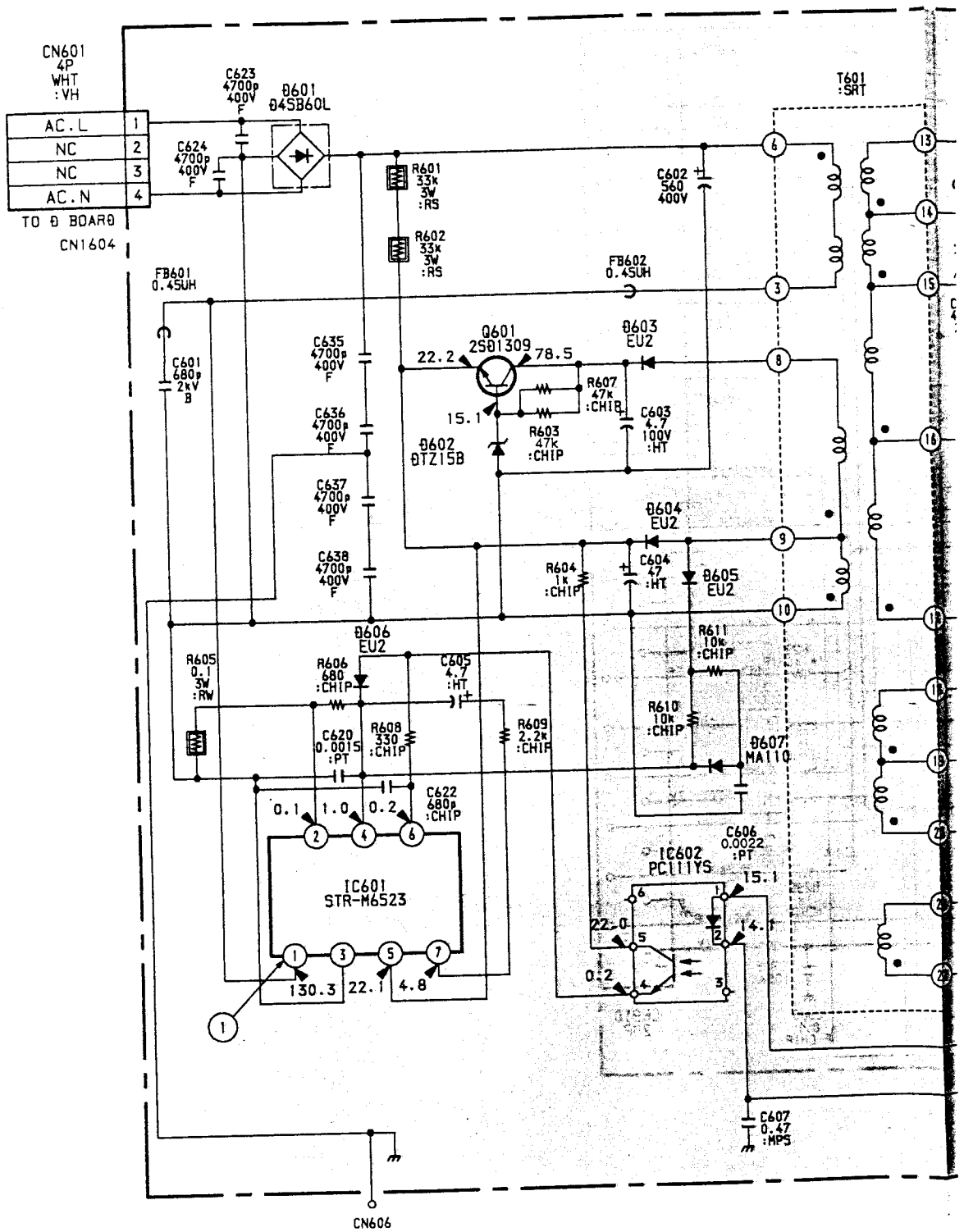

IC901
CX08478Q
VPOL
TSTCLK
DATA
CLK
DATA
VDD 2.5
GND
CS
MUXIN
255/256
GND 2.2
READY 0
MUXOUT 2.6
VREF 0.6
VSYNC 0.6
HPOL
HREF
HSYNC 5.2
RESET
GND
HFBK 4.4
OSCIN 2.6
GND
VDD
OSCOUT
OCOMP 0
CLK255 4.4
INTR
HSEP.SYNC
BP CLAMP 0
VSEP.SYNC
VDRIVE
HHOLD
HCENTER B13
HFOCUS B3
VCENTER
CONTRAST A4
HSTAT A3
RDRIVE A6
GDRIVE A5
BDRIVE A7
RCUTOFF A8
GCUTOFF A10
BCUTOFF A9
G2 A13
HPHASE G7
HSIZE G1
R983 1k :CHIP
R968 1k :CHIP
R969 1k :CHIP
R970 1k :CHIP
R971 1k :CHIP
R972 1k :CHIP
R973 1k :CHIP
R984 1k :CHIP
R985 1k :CHIP
R986 1k :CHIP
DATA
CLK
SELECT
C936 47 16V
C913 0.1 F:CHIP
HSEP
POWER SAVE
DEGAUSS
REMOTEON/OFF
VRETRACE
VSEP
MUXOUT
VSS
PB0/RXD
PB1/TXD
PB2/MISO
PB3/MOSI
PB4/SCK
PB5/SS
VDD
PA7/PAI
PA6/OC2
PA5/OC3
PA4/OC4
PA3/OC5
PA2/IC1
PA1/IC2
PA0/IC3
PB7/A15
+5V
C903 0.1 F:CHIP
R924 1k :CHIP
R925 1k :CHIP
R926 1k :CHIP
VFOCUS
VSTAT
VSHAPE
VBLANK
HSHAPE
HHOLD
VSIZE
R979 330 :CHIP
Q903 2SC2412K
R916 6.8k :CHIP
R272 0 :CHIP
R905 1k :CHIP
R935 5.6k :CHIP
R281 1k :CHIP
R282 1k :CHIP
C905 0.1 F:CHIP
R913 330 :RN-CP
Q910 2SK1078
R915 330 :CHIP
R910 56k :RN-CP
R912 2.2k :RN-CP
R911 100 :RN-CP
R909 10k :CHIP
C973 33 16V
R908 1k :CHIP
C907 1
C906 0.1 B:CHIP
IC911 SN74HC74ANS
C971 0.1 F:CHIP
IC912 SN74HC02ANS
C972 0.1 F:CHIP
R914 2.2k :CHIP
R917 3.3k :CHIP
VBLANK
VBRVPULSE


IC904
SC400646FU
IC912
SN74HC02ANS
IC908
MC14066BF
IC909
TL082M
X901
8.0MHz
+5V
+12V
-12V
DATA
CLK
SELECT
POWER SAVE
DEGAUSS
REMOTEON/OFF
VRETRCS
VSEE
MUXOUT
HSEE
HV.BET
HV.STOP
HPOL
VPOL
VBLANK
VDRVPULSE
HSYNC
VSIZE
R905 1k :CHIP
R935 5.6k :CHIP
R281 1k :CHIP
R282 1k :CHIP
R914 2.2k :CHIP
R917 3.3k :CHIP
R922 2.2M :CHIP
R923 10k :CHIP
R928 68k :RN-CP
R927 1.8k :RN-CP
R946 1k :CHIP
R998 1k :CHIP
R975 8.2k :RN-CP
R918 33k :RN-CP
R930 0.1 F:CHIP
R952 2.2k
R964 360
R987 1k :CHIP
R957 680k :CHIP
R956 82k :RN-CP
R955 220 :CHIP
R966 680k :CHIP
R958 220k :CHIP
R988 22k :CHIP
R944 1k :CHIP
R297 1k :CHIP
C911 22p CH:CHIP
C910 22p CH:CHIP
C933 100p :CHIP
C912 0.1 F:CHIP
C935 47 16V
C913 0.1 F:CHIP
C936 47 16V
C904 0.1 B:CHIP
C969 0.1 F:CHIP
C934 0.068 16V :PPS-CP
C932 0.022 16V :PPS-CP
C958 47 25V
C959 0.1 F:CHIP
C991 0.1 :CHIP
C972 0.1 F:CHIP
D905 MA110


CN911 20P
CN910 20P
H.HOLD
H.OSC
PHASE OUT
H.SYNC IN
PHASE CI
V.RAMP OUT
H.DRIVE
H.PLS IN
PHASE C2
H.PHASE
V.REF
V.SIZE
V.SYNC IN
V.OSC
V.HOLD
H SIZE
HCENTER
HSHAPE
HBLANK
HDRIVE
HFOCUS
VFOCUS
TILT
HV.ADJ
VRETRC12
VCENTER
VRAMP
ROTATION
REMOTEON/OFF
POWER SAVE
VSTAT
HD.STOP
HSHAPE
+12V
+5V
-12V
STBY-12V
STBY+12V
EMI
FL951 0.01
FL956 0.01
L905 100uH
Q906 2SC2412K
Q907 2SC2412K
Q909 DTC124EK
Q912 2SC2412K
D902 MA110
D905 MA110
D906 MA110
D908 MA110
D909 MA110
D910 MA110
D917 MA110
X901 8.0MHz



F G H I J K L M N O P

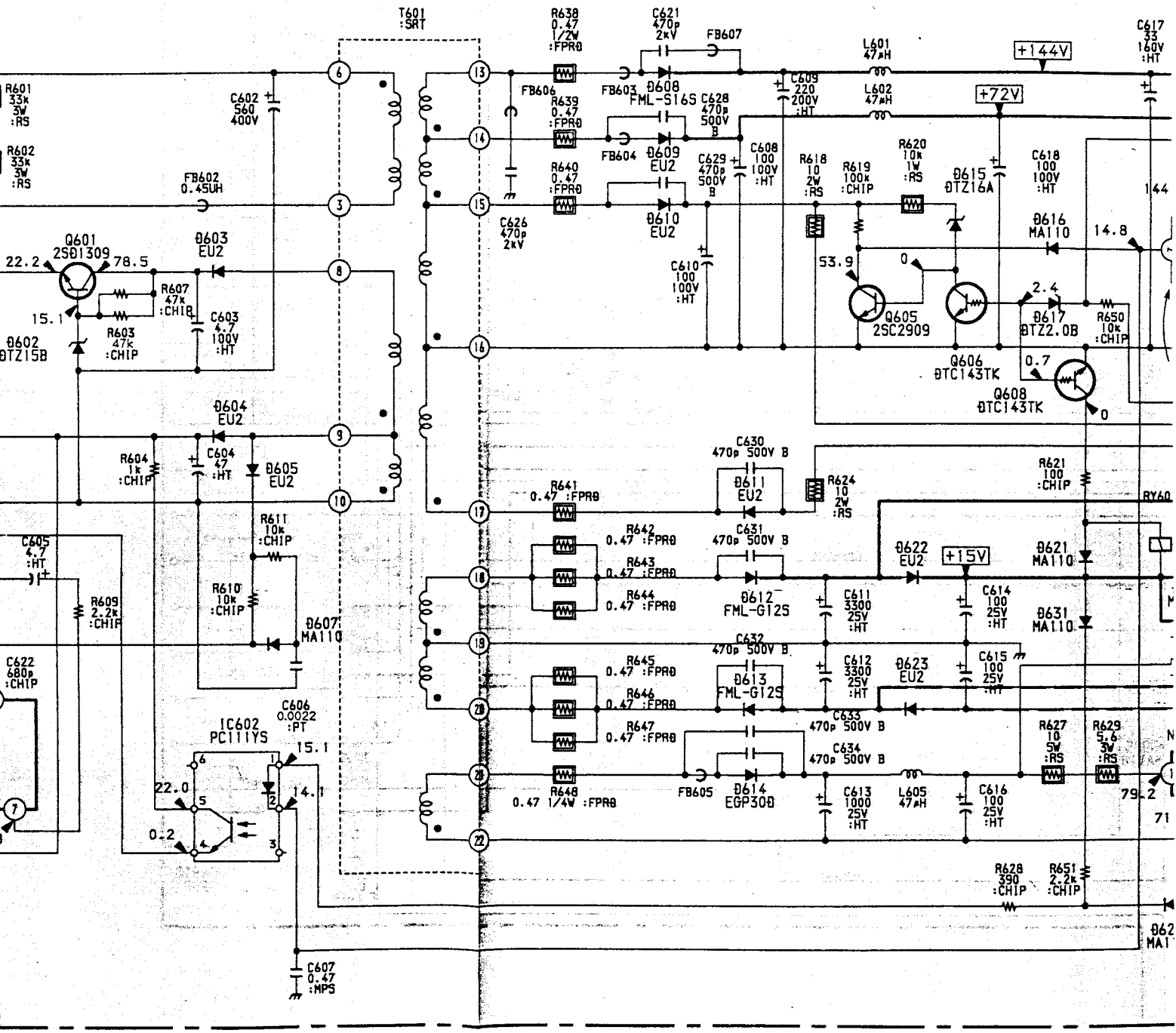


Schematic diagram

← N board

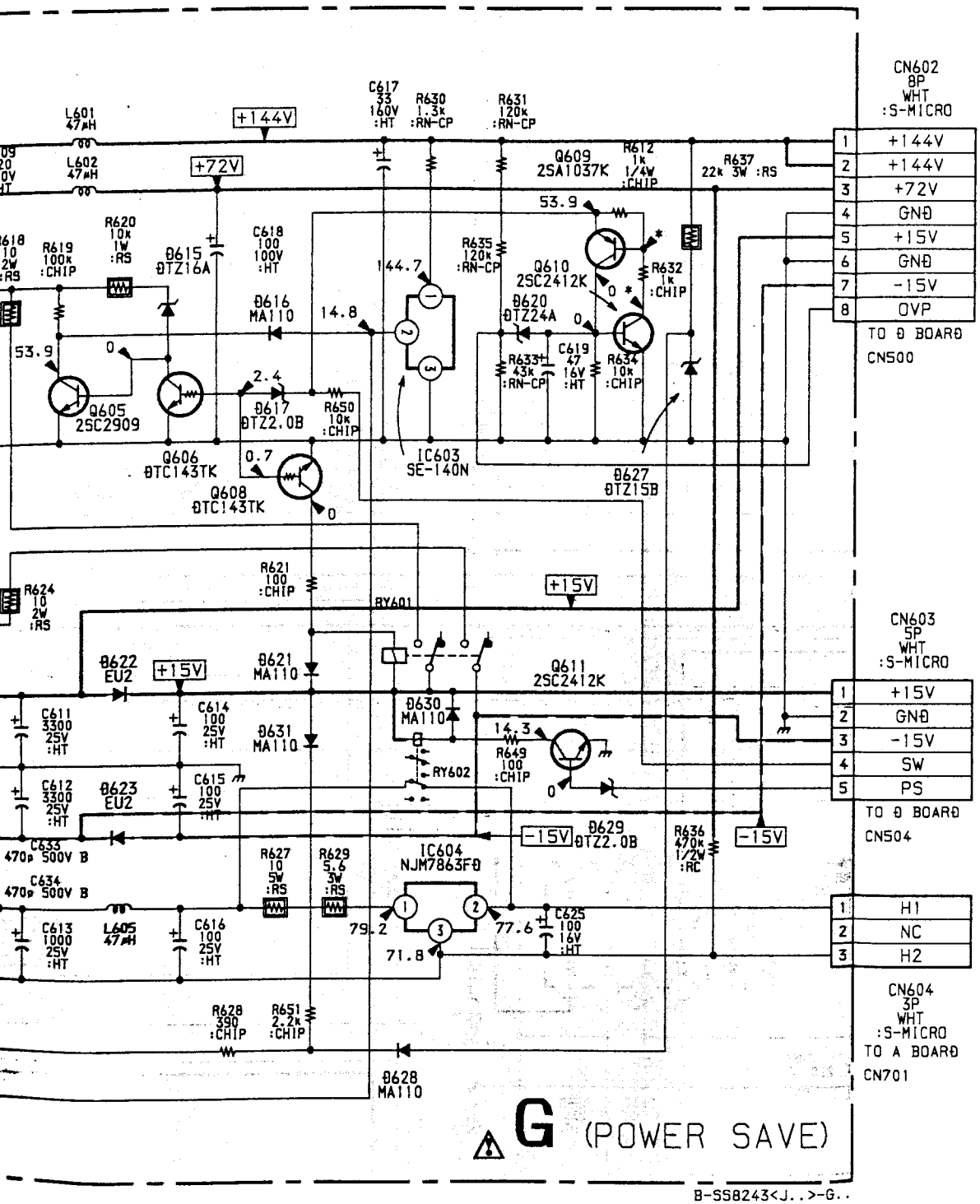
Schematic diagrams

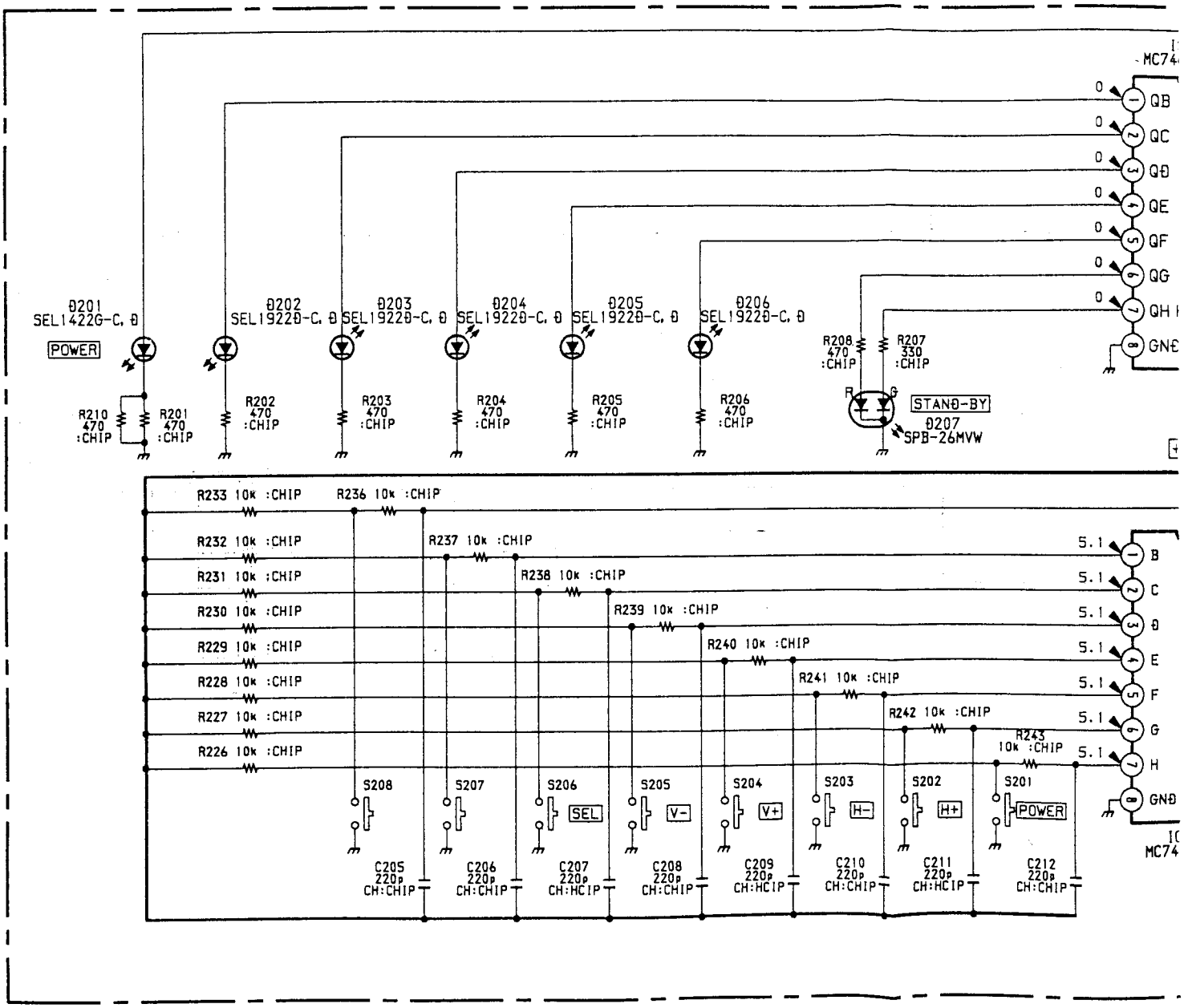
G M H boards →

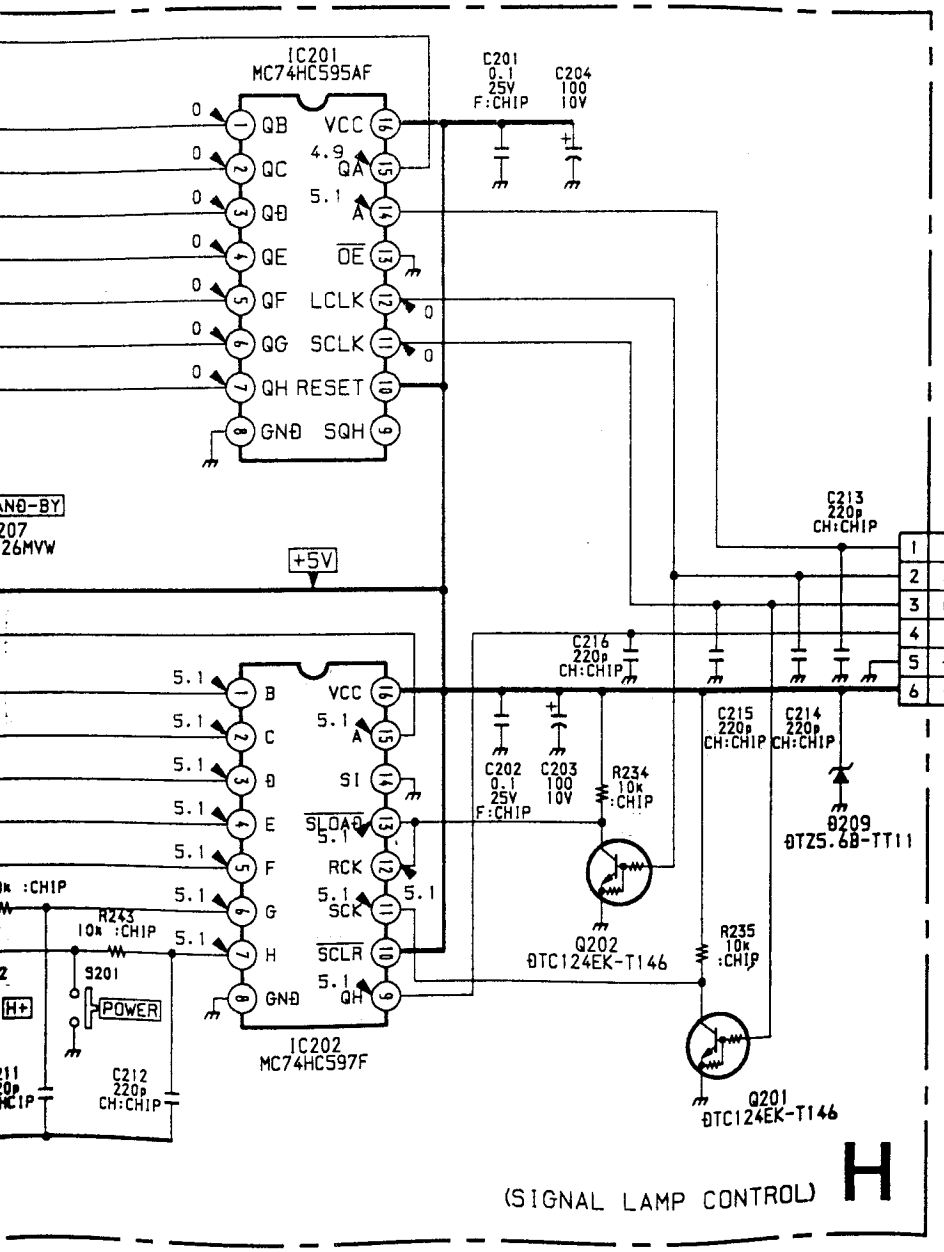


Schematic diagrams

G M H boards ➡


CN602
8P
WHT
:S-MICRO
1 +144V
2 +144V
3 +72V
4 GND
5 +15V
6 GND
7 -15V
8 OVP
TO B BOARD
CN500
CN603
5P
WHT
:S-MICRO
1 +15V
2 GND
3 -15V
4 SW
5 PS
TO B BOARD
CN504
1 H1
2 NC
3 H2
CN604
3P
WHT
:S-MICRO
TO A BOARD
CN701
L601 47μH
L602 47μH
+144V
+72V
+15V
-15V
C617 33 160V :HT
R630 1.3k :RN-CP
R631 120k :RN-CP
Q609 2SA1037K
R612 1k 1/4W :CHIP
R637 22k 3W :RS
Q610 2SC2412K
R632 1k :CHIP
R620 10k 1W :RS
D615 DTZ16A
C618 100 100V :HT
R619 100k :CHIP
D616 MA110
R635 120k :RN-CP
Q605 2SC2909
D617 DTZ2.0B
R650 10k :CHIP
Q606 DTC143TK
Q608 DTC143TK
IC603 SE-140N
D620 DTZ24A
R633 43k :RN-CP
C619 47 16V :HT
R634 10k :CHIP
D627 DTZ15B
R624 10 2W :RS
R621 100 :CHIP
RY601
D622 EU2
D621 MA110
Q611 2SC2412K
D630 MA110
D631 MA110
R649 100 :CHIP
RY602
C611 3300 25V :HT
C612 3300 25V :HT
C614 100 25V :HT
C615 100 25V :HT
D623 EU2
C633 470p 500V B
C634 470p 500V B
D629 DTZ2.0B
R636 470k 1/2W :RC
IC604 NJM7863FD
R627 10 5W :RS
R629 5.6 3W :RS
C613 1000 25V :HT
L605 47μH
C616 100 25V :HT
C625 100 16V :HT
R628 390 :CHIP
R651 2.2k :CHIP
D628 MA110
G (POWER SAVE)
B-SS8243<J..>-G..


Q201
SEL1422G-C, Q
POWER
Q202
SEL1922Q-C, Q
Q203
SEL1922Q-C, Q
Q204
SEL1922Q-C, Q
Q205
SEL1922Q-C, Q
Q206
SEL1922Q-C, Q
R210 470 :CHIP
R201 470 :CHIP
R202 470 :CHIP
R203 470 :CHIP
R204 470 :CHIP
R205 470 :CHIP
R206 470 :CHIP
R208 470 :CHIP
R207 330 :CHIP
R
G
STANQ-BY
Q207
SPB-26MVW
MC74
QB
QC
QQ
QE
QF
QG
QH
GNQ
R233 10k :CHIP
R236 10k :CHIP
R232 10k :CHIP
R237 10k :CHIP
R231 10k :CHIP
R238 10k :CHIP
R230 10k :CHIP
R239 10k :CHIP
R229 10k :CHIP
R240 10k :CHIP
R228 10k :CHIP
R241 10k :CHIP
R227 10k :CHIP
R242 10k :CHIP
R226 10k :CHIP
R243 10k :CHIP
S208
S207
S206
SEL
S205
V-
S204
V+
S203
H-
S202
H+
S201
POWER
C205 220p CH:CHIP
C206 220p CH:CHIP
C207 220p CH:HCIP
C208 220p CH:CHIP
C209 220p CH:HCIP
C210 220p CH:CHIP
C211 220p CH:HCIP
C212 220p CH:CHIP
5.1
B
C
Q
E
F
G
H
GNQ
MC74


IC201
MC74HC595AF
C201
0.1
25V
F:CHIP
C204
100
10V
QB
QC
QD
QE
QF
QG
QH
GND
VCC
QA
A
OE
LCLK
SCLK
RESET
SQH
4.9
5.1
CN201
6P
WHT-L
:S-MICRO
C213
220p
CH:CHIP
1 LED DATA
2 CS
3 CLK
4 SW DATA
5 D GND
6 +5V
TO N BOARD
CN907
+5V
C216
220p
CH:CHIP
C202
0.1
25V
F:CHIP
C203
100
10V
R234
10k
:CHIP
C215
220p
CH:CHIP
C214
220p
CH:CHIP
D209
DTZ5.6B-TT11
Q202
DTC124EK-T146
R235
10k
:CHIP
Q201
DTC124EK-T146
R243
10k :CHIP
S201
POWER
C212
220p
CH:CHIP
IC202
MC74HC597F
B
C
D
E
F
G
H
SI
SLOAD
RCK
SCK
SCLR
QH
GND
VCC
A
(SIGNAL LAMP CONTROL)
H

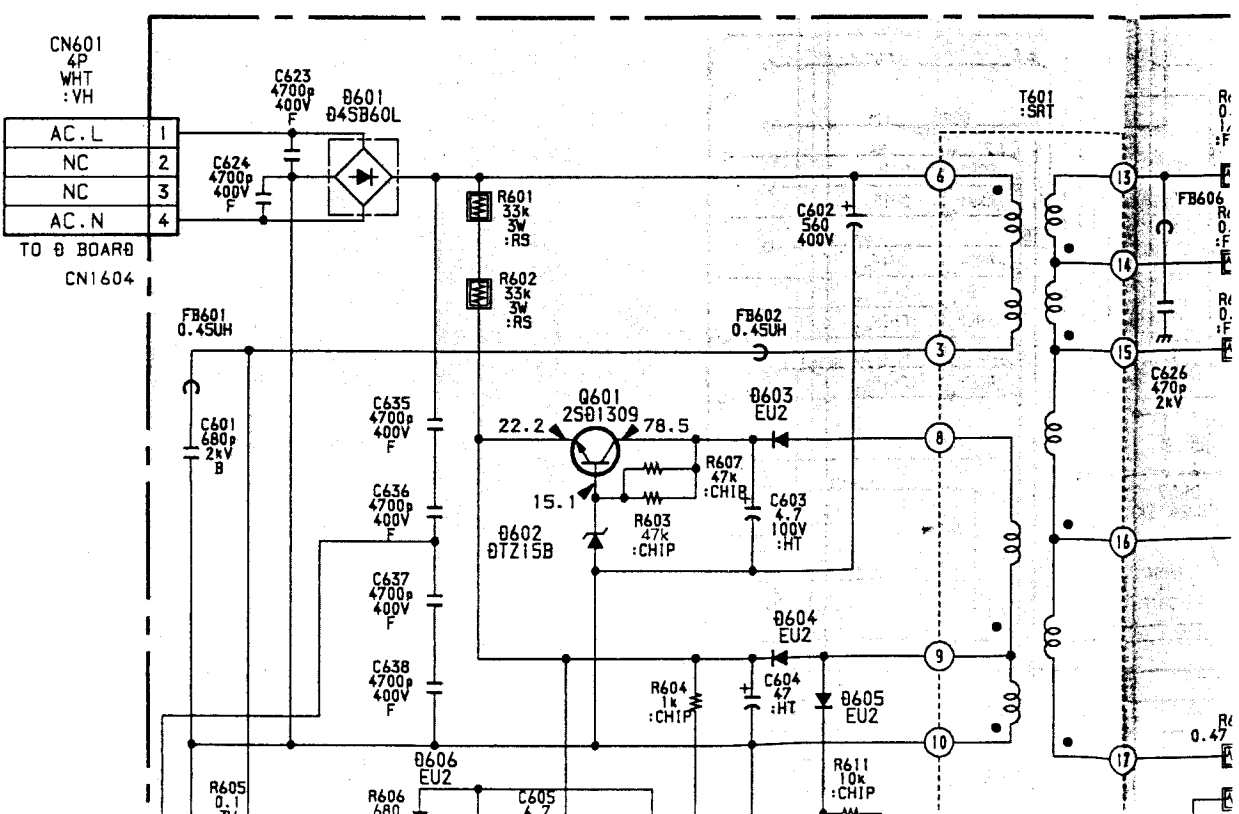
1 2 3 4 5 6 7 8

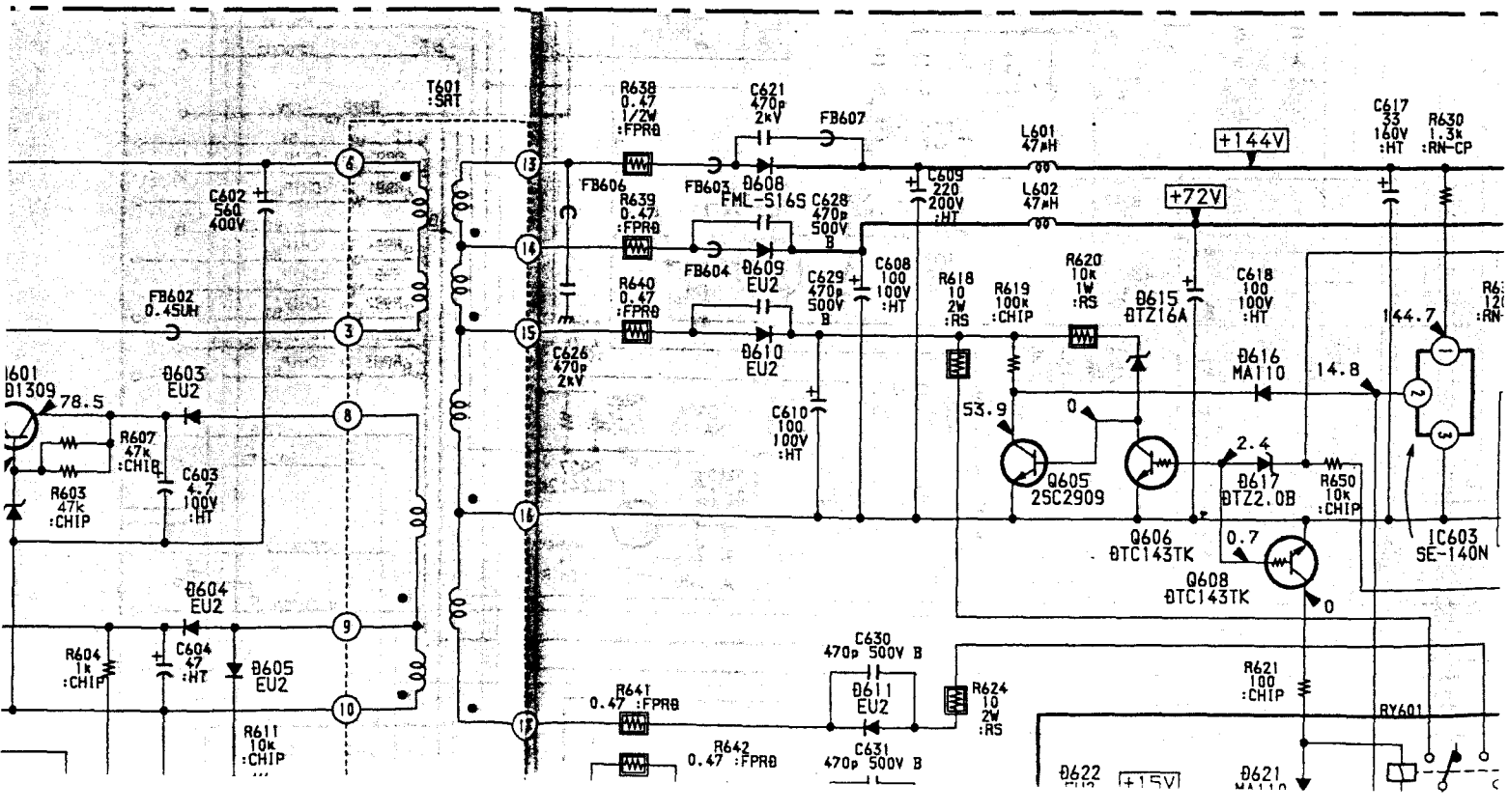
A B C D E F G H I J K

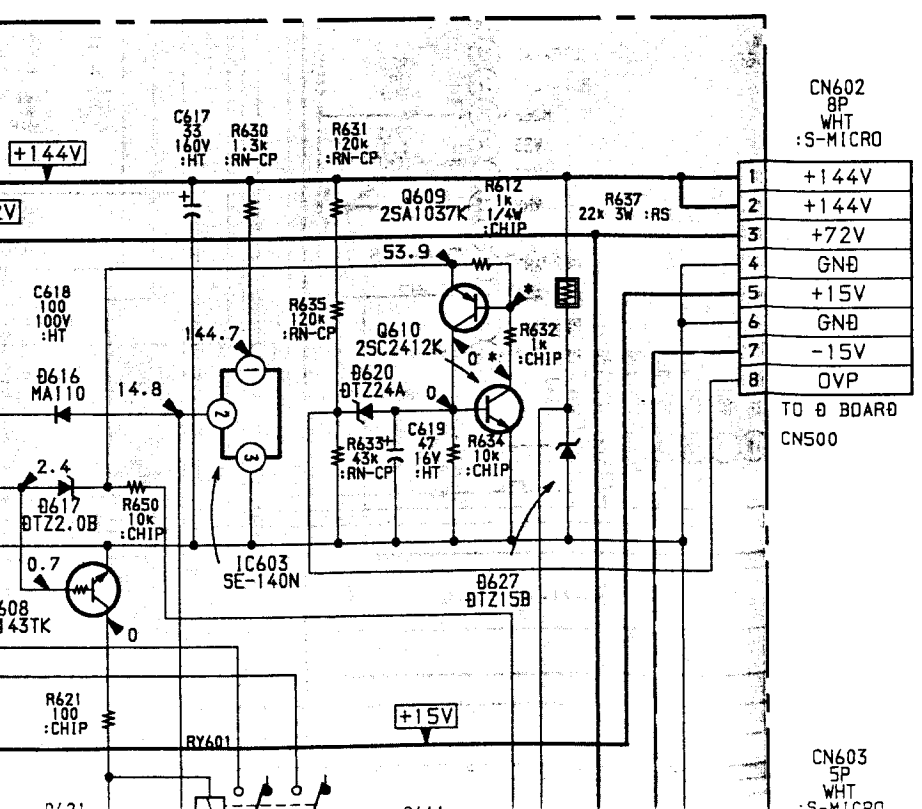
G BOARD WAVEFORM

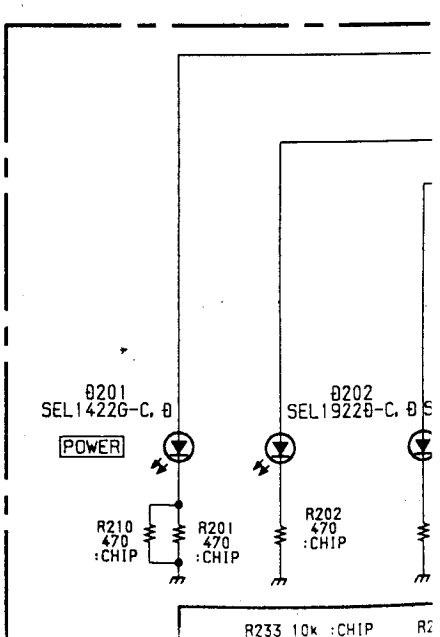
①

0.015 Vp-p (V)



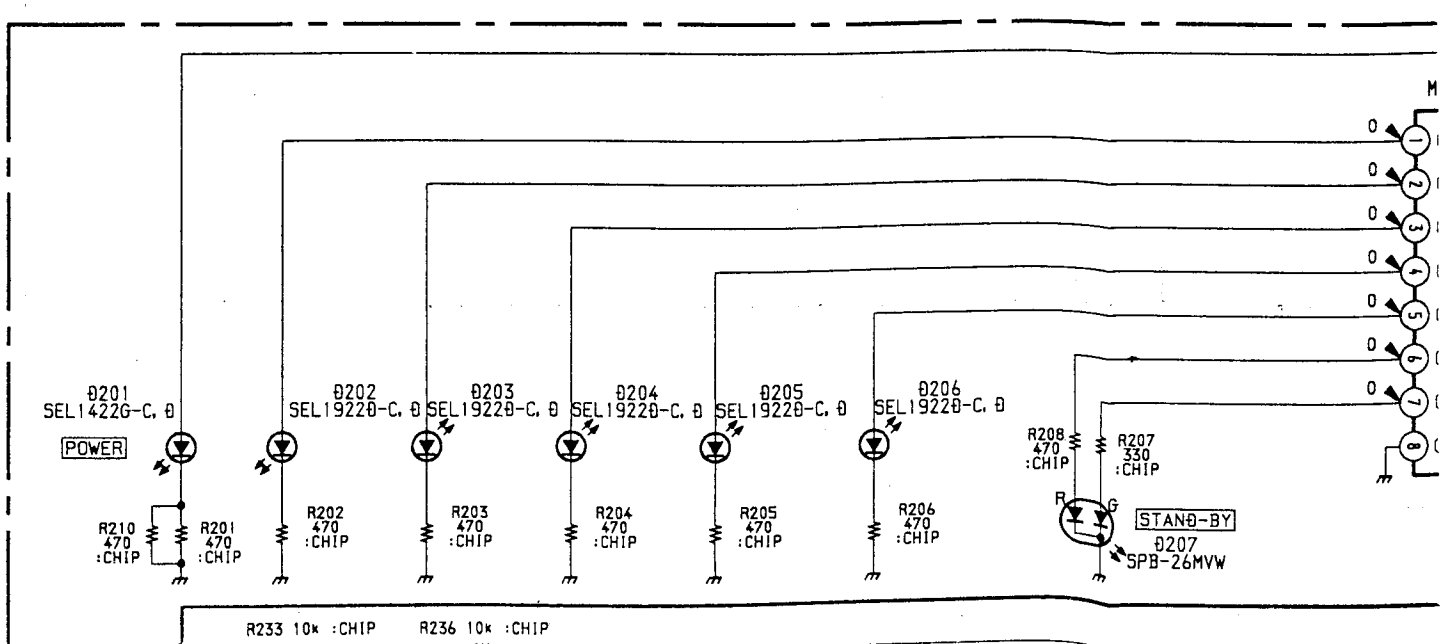

T601
:SAT
R638
0.47
1/2W
:FPRB
C621
470p
2kV
FB607
L601
47μH
+144V
C617
33
160V
:HT
R630
1.3k
:RN-CP
FB606
FB603
D608
FML-S16S
C628
470p
500V
B
L602
47μH
+72V
C602
560
400V
R639
0.47
:FPRB
FB604
D609
EU2
C609
220
200V
:HT
C608
100
100V
:HT
R618
10
2W
:RS
R619
100k
:CHIP
R620
10k
1W
:RS
D615
BTZ16A
C618
100
100V
:HT
144.7
FB602
0.45UH
R640
0.47
:FPRB
D610
EU2
C629
470p
500V
B
C626
470p
2kV
D616
MA110
14.8
53.9
0
2.4
Q605
2SC2909
D617
BTZ2.0B
R650
10k
:CHIP
D601
D1309
78.5
D603
EU2
R607
47k
:CHIP
C603
4.7
100V
:HT
R603
47k
:CHIP
C610
100
100V
:HT
Q606
BTC143TK
0.7
Q608
BTC143TK
0
IC603
SE-140N
D604
EU2
R604
1k
:CHIP
C604
47
:HT
D605
EU2
C630
470p 500V B
D611
EU2
R624
10
2W
:RS
R621
100
:CHIP
RY601
R641
0.47 :FPRB
R642
0.47 :FPRB
C631
470p 500V B
R611
10k
:CHIP
D622
+15V
D621

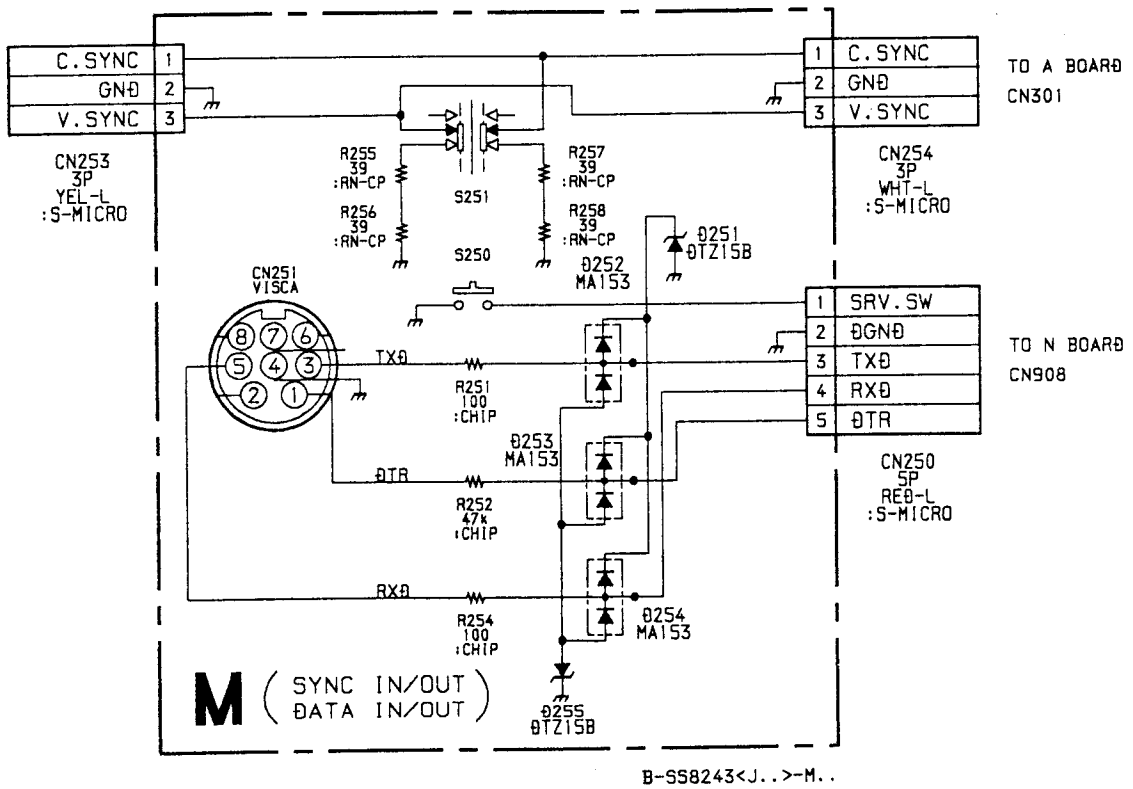

+144V
C617
33
160V
:HT
R630
1.3k
:RN-CP
R631
120k
:RN-CP
Q609
2SA1037K
R612
1k
1/4W
:CHIP
R637
22k 3W :RS
53.9
C618
100
100V
:HT
R635
120k
:RN-CP
144.7
Q610
2SC2412K
R632
1k
:CHIP
Ø616
MA110
14.8
Ø620
ØTZ24A
R633
43k
:RN-CP
C619
47
16V
:HT
R634
10k
:CHIP
2.4
Ø617
ØTZ2.0B
R650
10k
:CHIP
0.7
IC603
SE-140N
Ø627
ØTZ15B
R621
100
:CHIP
+15V
RY601
CN602
8P
WHT
:S-MICRO
1 +144V
2 +144V
3 +72V
4 GNØ
5 +15V
6 GNØ
7 -15V
8 OVP
TO Ø BOARØ
CN500
CN603
5P
WHT

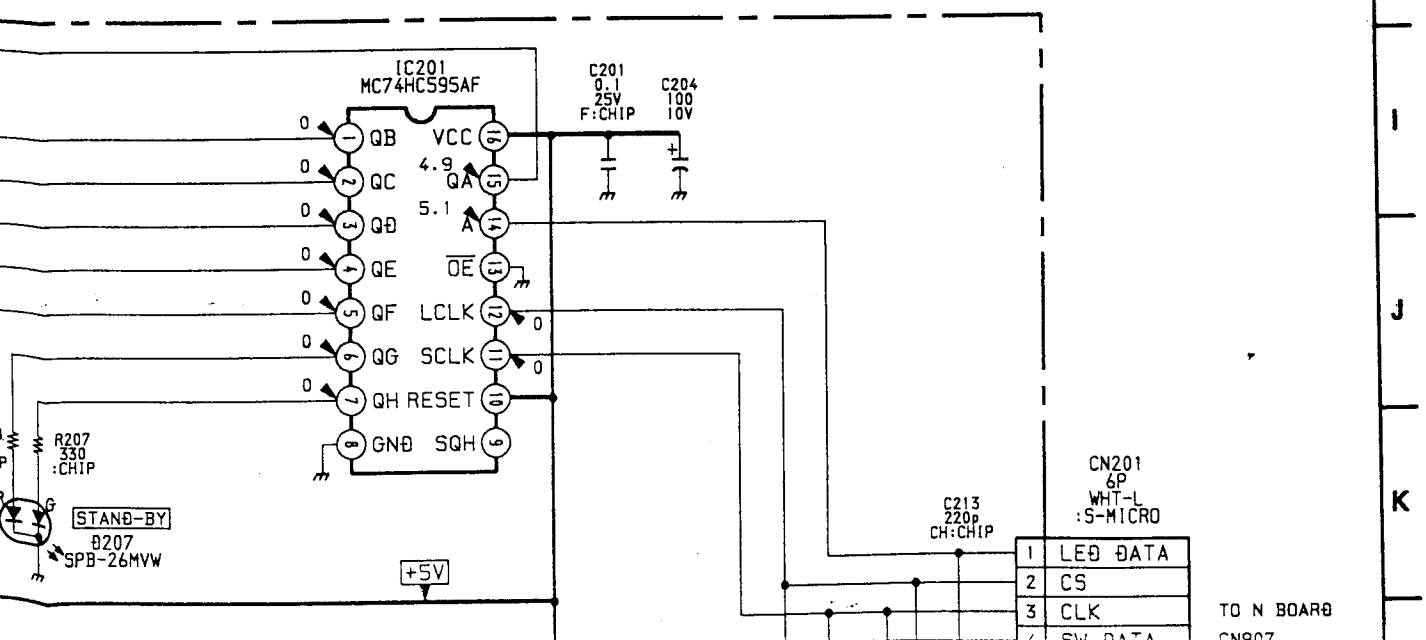

Ø201
SEL1422G-C, Ø
Ø202
SEL1922Ø-C, Ø
POWER
R210
470
:CHIP
R201
470
:CHIP
R202
470
:CHIP
R233 10k :CHIP

C.SYNC
GND
V.SYNC

CN253
3P
YEL-L
:S-MICRO

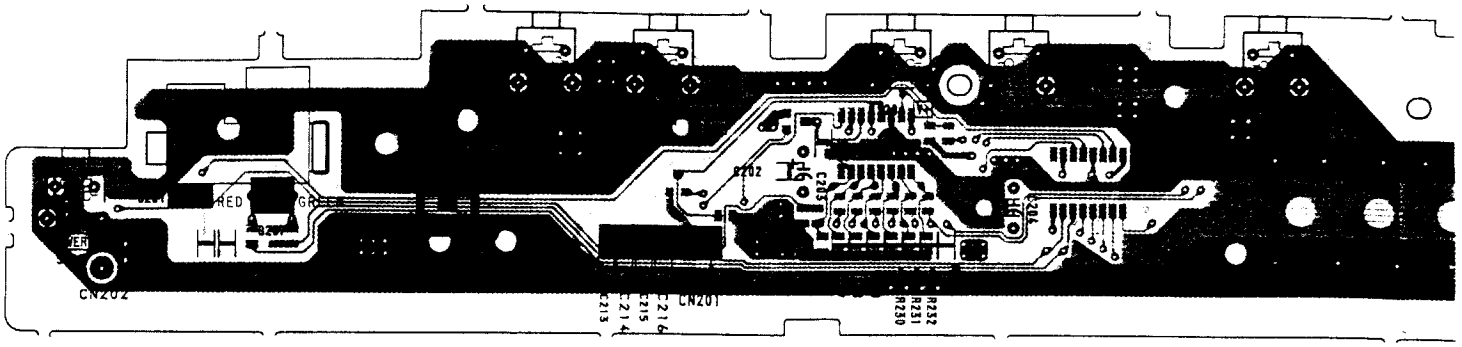



C.SYNC 1
GND 2
V.SYNC 3
CN253
3P
YEL-L
:S-MICRO
R255 39 :RN-CP
R256 39 :RN-CP
R257 39 :RN-CP
R258 39 :RN-CP
S251
S250
D251 DTZ15B
D252 MA153
CN251 VISCA
TXD
RXD
DTR
R251 100 :CHIP
R252 47k :CHIP
R254 100 :CHIP
D253 MA153
D254 MA153
D255 DTZ15B
M (SYNC IN/OUT DATA IN/OUT)
1 C.SYNC
2 GND
3 V.SYNC
CN254
3P
WHT-L
:S-MICRO
TO A BOARD
CN301
1 SRV.SW
2 DGND
3 TXD
4 RXD
5 DTR
CN250
5P
RED-L
:S-MICRO
TO N BOARD
CN908
B-SS8243<J..>-M..

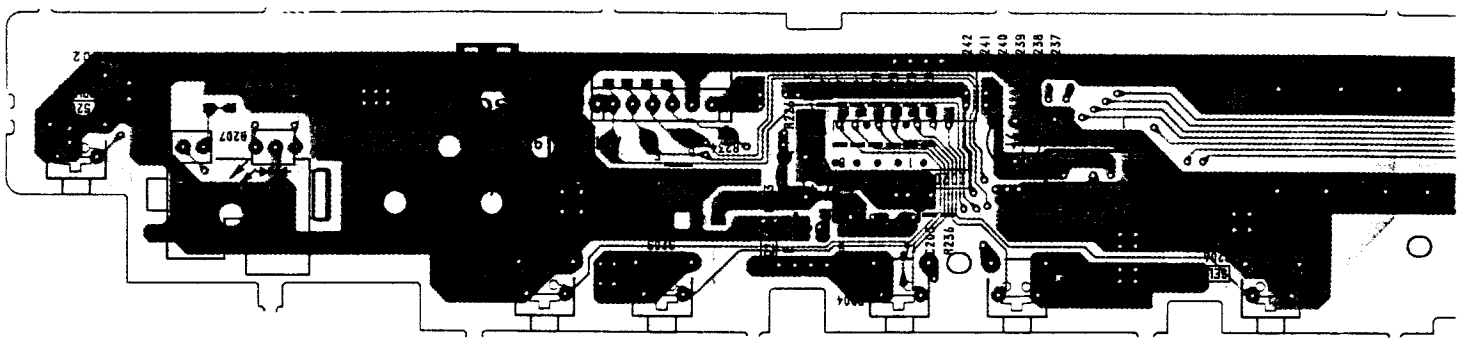

IC201
MC74HC595AF
QB QC QD QE QF QG QH GND
VCC QA A OE LCLK SCLK RESET SQH
C201 0.1 25V F:CHIP
C204 100 10V
4.9
5.1
R207 330 :CHIP
STAND-BY
D207 SPB-26MVW
+5V
C213 220p CH:CHIP
CN201
6P
WHT-L
:S-MICRO
1 LED DATA
2 CS
3 CLK
TO N BOARD

H [SIGNAL LAMP CONTROL] **M** [DATA IN/OUT]

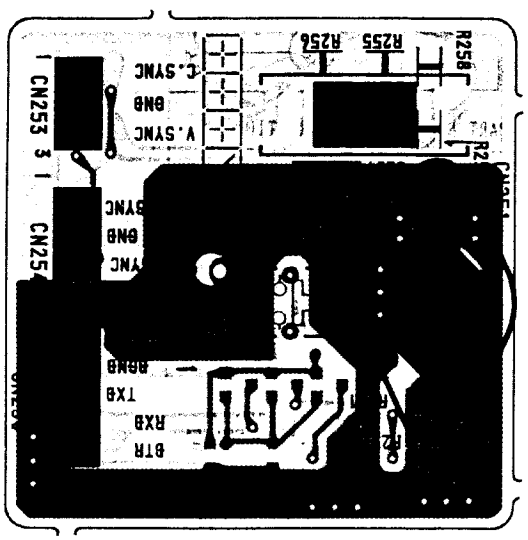
– H Board (Conductor Side) –



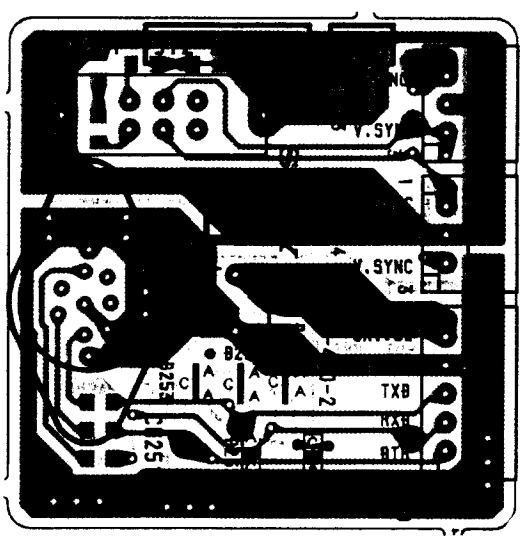
– H Board (Component Side) –



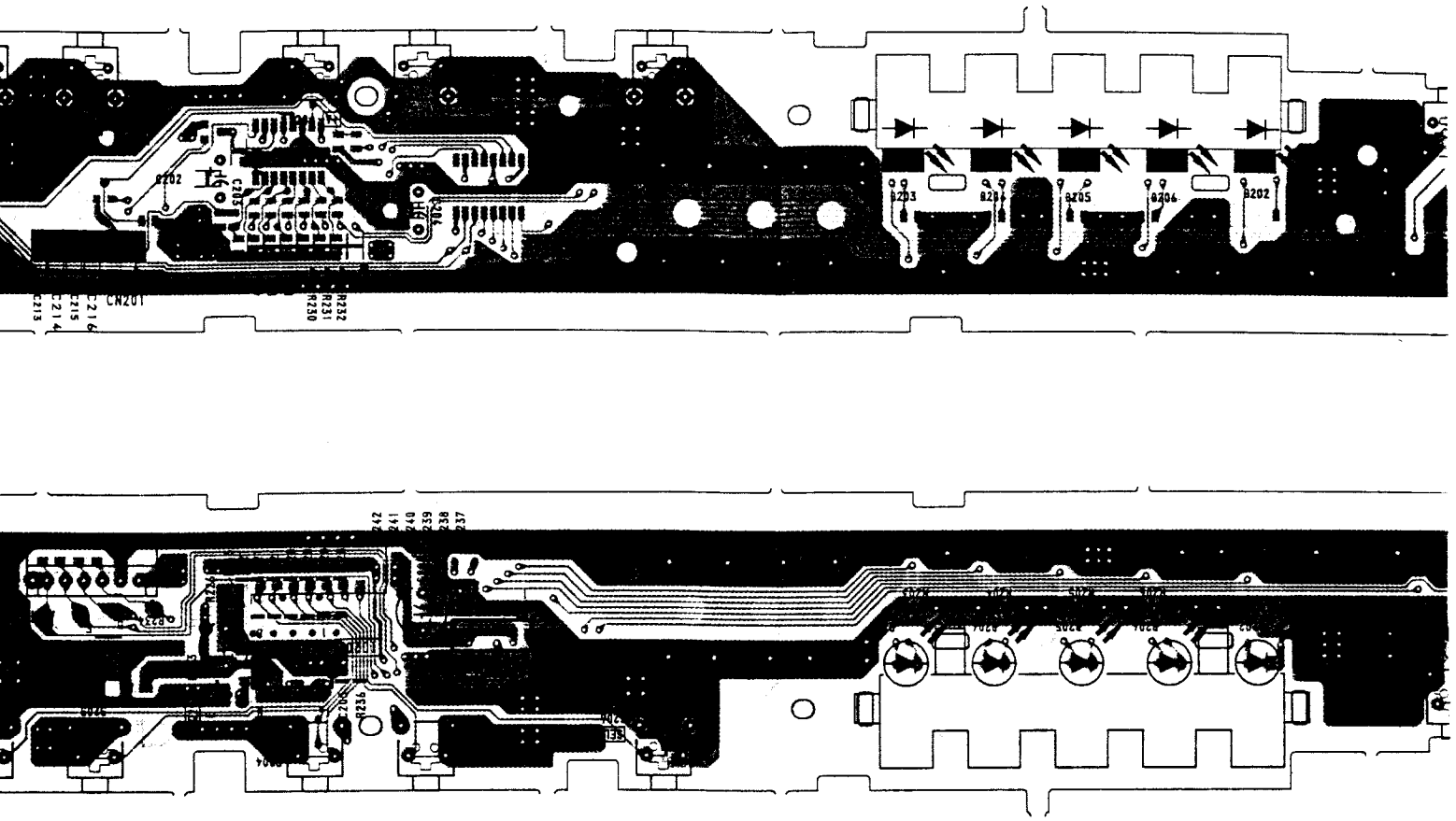
– M Board (Conductor Side) –



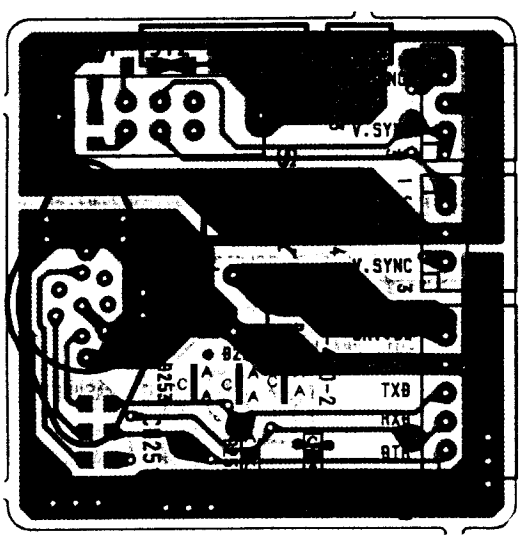
– M Board (Component Side) –



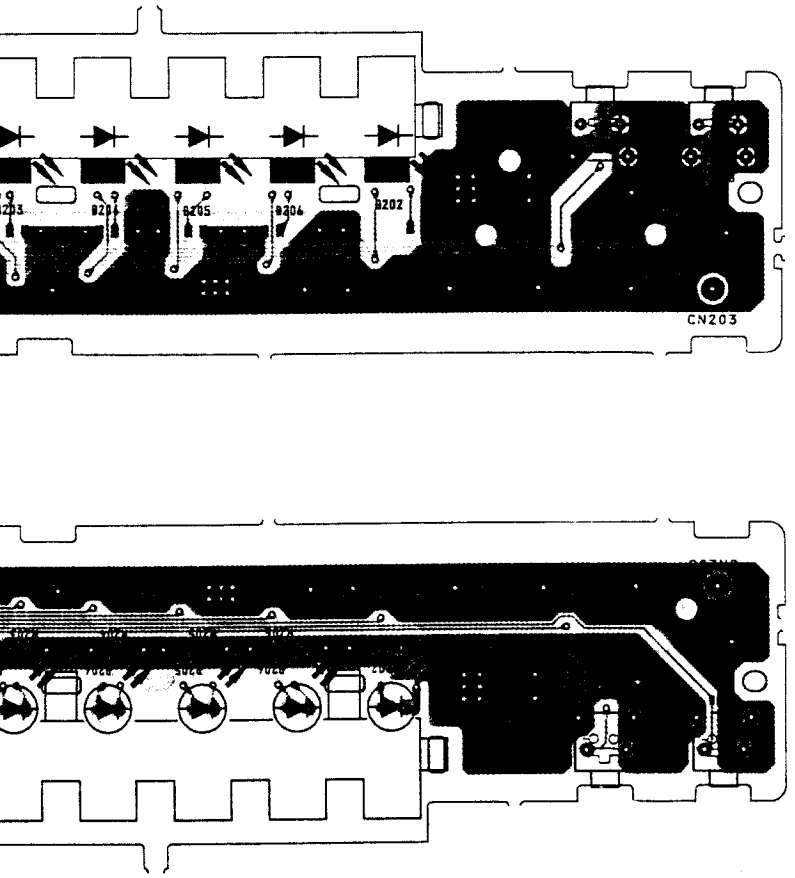
H [SIGNAL LAMP CONTROL] **M** [DATA IN/OUT]

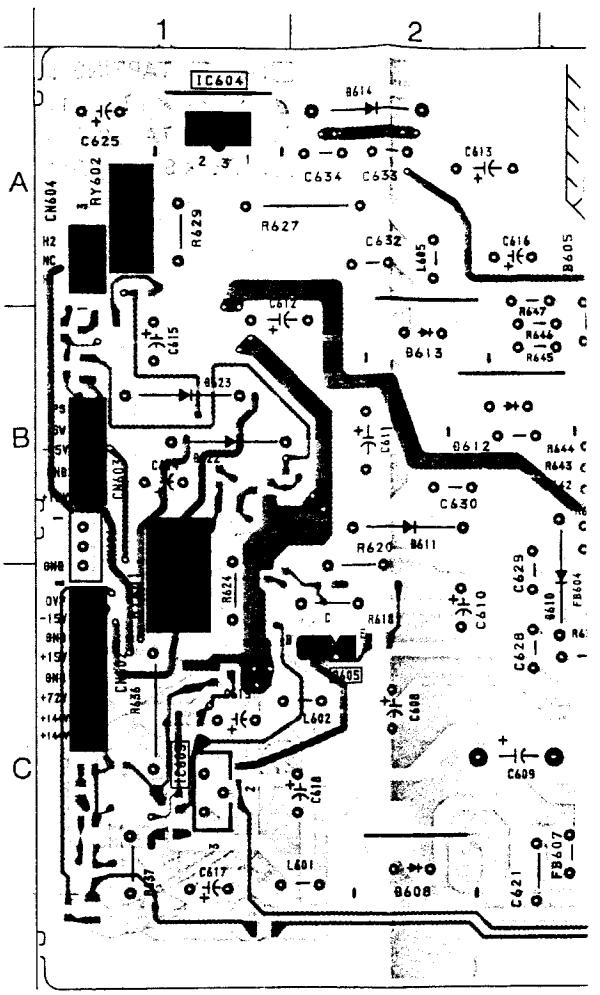


– M Board (Component Side) –

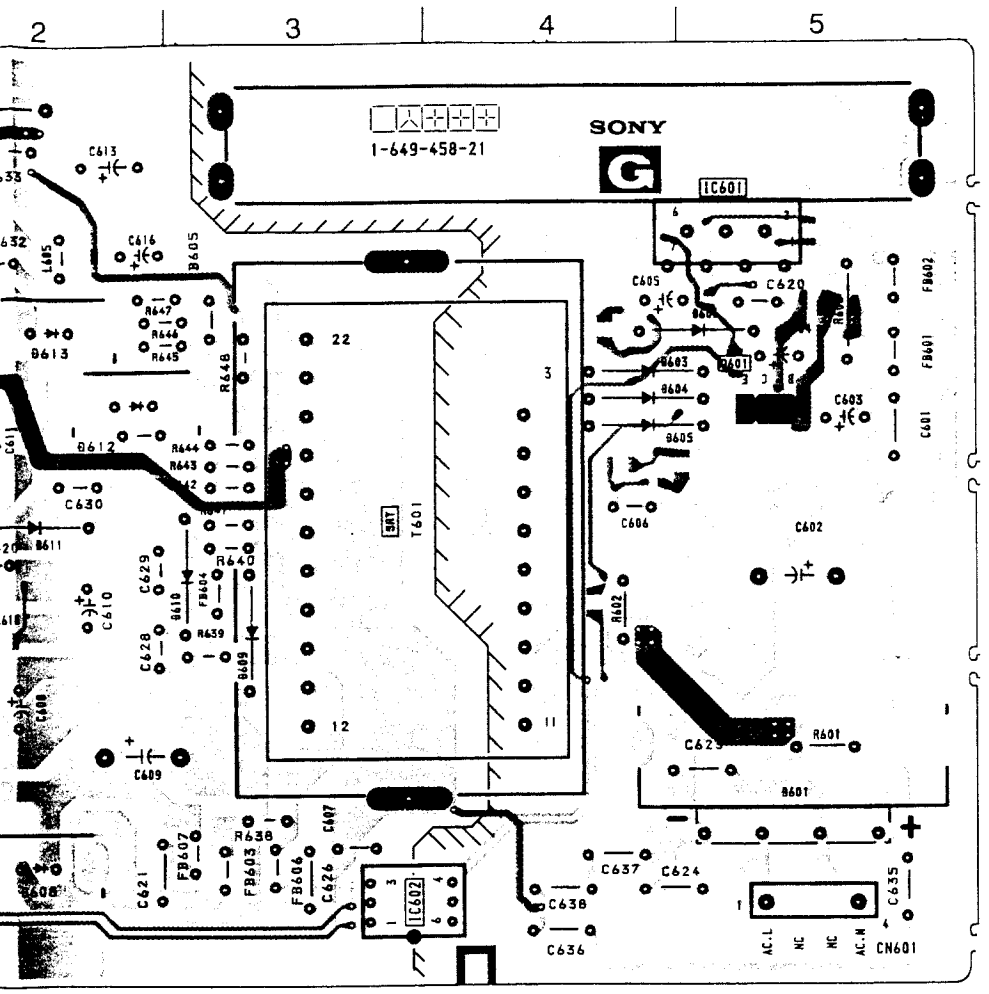


– G Board (Conductor Side) –





- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

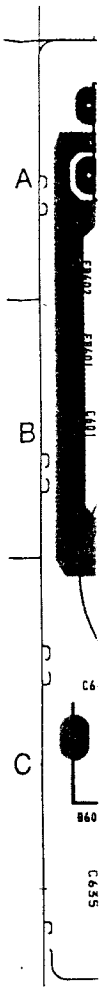


• G BOARD

IC		
	(Conductor Side)	(Component Side)
IC601	A – 5	A – 1
IC602	C – 3	C – 3
IC603	C – 1	C – 5
IC604	A – 1	A – 5

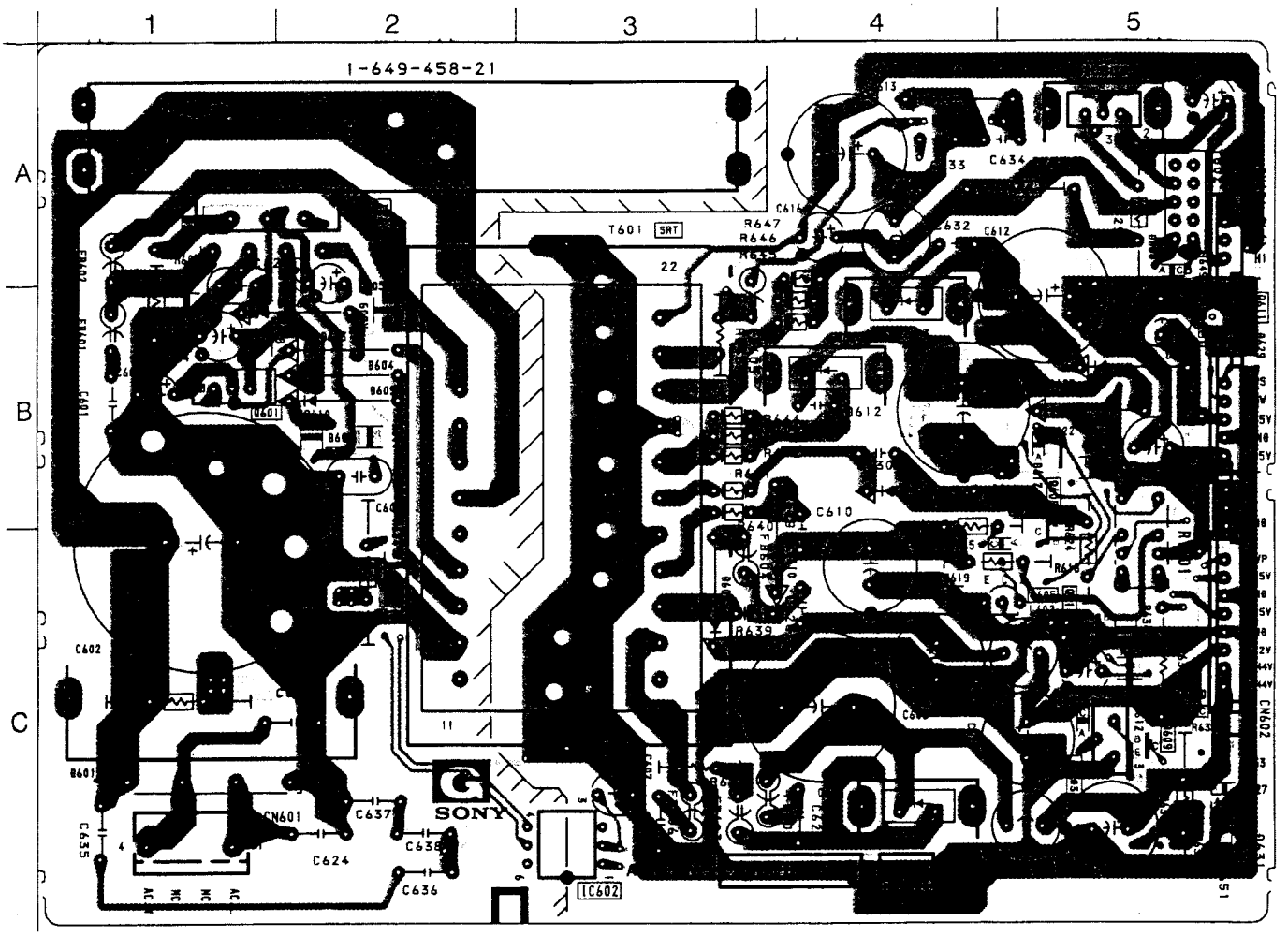
TRANSISTOR		
	(Conductor Side)	(Component Side)
Q601	B – 5	B – 1
Q605	C – 2	C – 5
Q606		C – 5
Q608		B – 5
Q609		C – 5
Q610		C – 5
Q611		B – 5

DIODE		
	(Conductor Side)	(Component Side)
D601	C – 5	C – 1
D602		A – 1
D603	B – 4	B – 2
D604	B – 4	B – 2
D605	B – 4	B – 2
D606	B – 5	B – 1
D607		B – 2
D608	C – 2	C – 4
D609	C – 3	C – 3
D610	C – 3	C – 4
D611	B – 2	B – 4
D612	B – 2	B – 4
D613	B – 2	B – 4
D614	A – 2	A – 4
D615		C – 5
D616		C – 5
D617		B – 5
D620		C – 5
D621		B – 5
D622	B – 1	B – 5
D623	B – 1	B – 5
D627		C – 5
D628		C – 5
D629		B – 5
D630		A – 5
D631		C – 5



ch enables seeing.

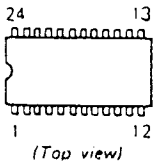
– G Board (Component Side) –



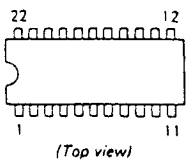
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

5-5. SEMICONDUCTORS

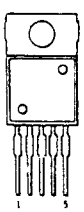
CXA1544P



CXA1616S



LA6500-FA



LM358P
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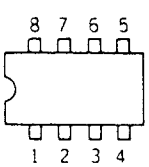
LM2903P
SN751701PS-ELL2000
TL082ACP
TL082CP
μPC358C



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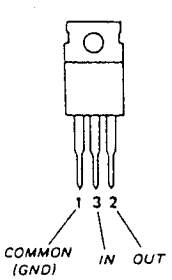
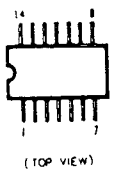
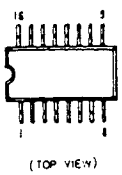
MC7912CT
NJM79M08FA



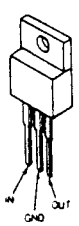
MC14066BF
MC74HC00AF
SN74HC02ANS



MC74HC595AF
MC74HC597F-T2



MC7805CT



NJM78L05A

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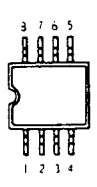
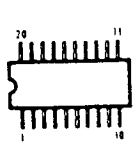
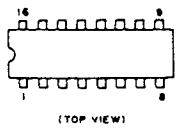
TL082CPS
TL082M



SN74HC74ANS



TC4049BP



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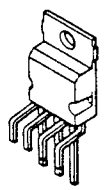

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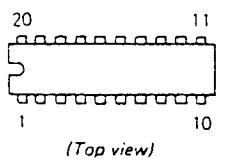
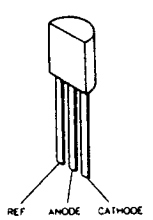


TL431CLP



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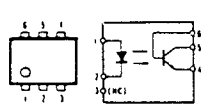

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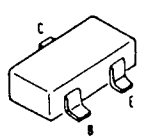
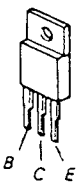
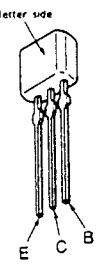
DTC143TK
2SA1037K-QR
2SA1162-Q
2SC1623-L5L6
2SC2412K-QR



IRFI9620
2SC3746



2SA1175-HFE
2SA1309A
2SC2785-HFE
2SC3311A



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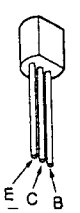

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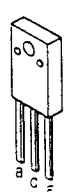

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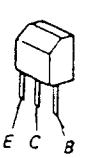
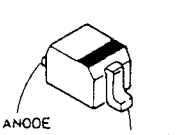
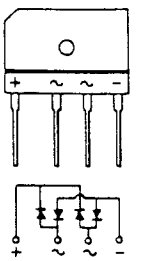
2SD774-34



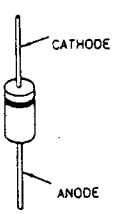
DTZ5.6B
MA110



D4SB60L



EGP20G
ERA15-01TP1
ERA34-10
ERB91-02
EU-2
GP08D
HSM83
RGP15G
1SS83
10E2



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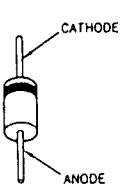
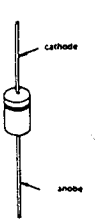
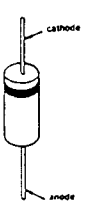
RGP02-17
RGP02-17EL-6433



ERC91-02
RGP02-20EL-6394



ERD09-15J



MA153
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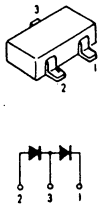
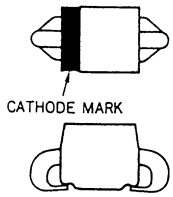
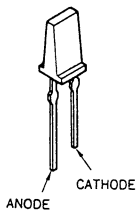


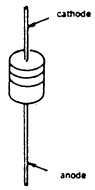
SC015-2



SEL1422G-C, D
SEL1922D-C



RD13ES-B2
RD16ES-B3
RD18ES-B2
RD2.0ES-B2
RD3.6ES-B2
RD4.7ES-B2
RD5.1ES-B2
RD5.6ES-B2
1SS119



FRU LIST

1)	VIDEO AMP,MCB ASSY (A)	8-934-583-00
2)	DEFLECTION MCB ASSY (D)	8-934-704-00
3)	POWER BLOCK (G+F)	8-934-585-00
4)	CONTROL PANEL ASSY (H)	8-934-705-00
5)	MICON MCB (N)	8-934-707-00
6)	CONNECTOR PANEL ASSY (M)	8-934-708-00
7)	MAIN HARNESS	1-900-076-09
8)	SUB HARNESS	1-900-048-40
9)	CABLE ASSY	A-1500-655-A
10)	FOCUS VR PACK	1-223-417-11
11)	ITC ASSY (CRT,DY,NA)	8-736-050-90
		8-736-048-90 (GDM-20E01T)
12)	BEZEL ASSY	X-4031-591-1
13)	CABINET ASSY	X-4031-590-1
14)	STAND ASSY	A-1481-666-A
15)	EMI SHIELD	X-4031-649-1
16)	PROTECTION BAG	4-368-079-01
17)	CUSHION UPPER	4-043-390-01
18)	CUSHION LOWER	4-043-391-01
19)	CARTON	4-044-296-01
20)	STAND PAD	4-041-505-01
21)	JOINT	4-396-077-01
22)	TRAY	4-038-264-01

SECTION 6
EXPLODED VIEWS

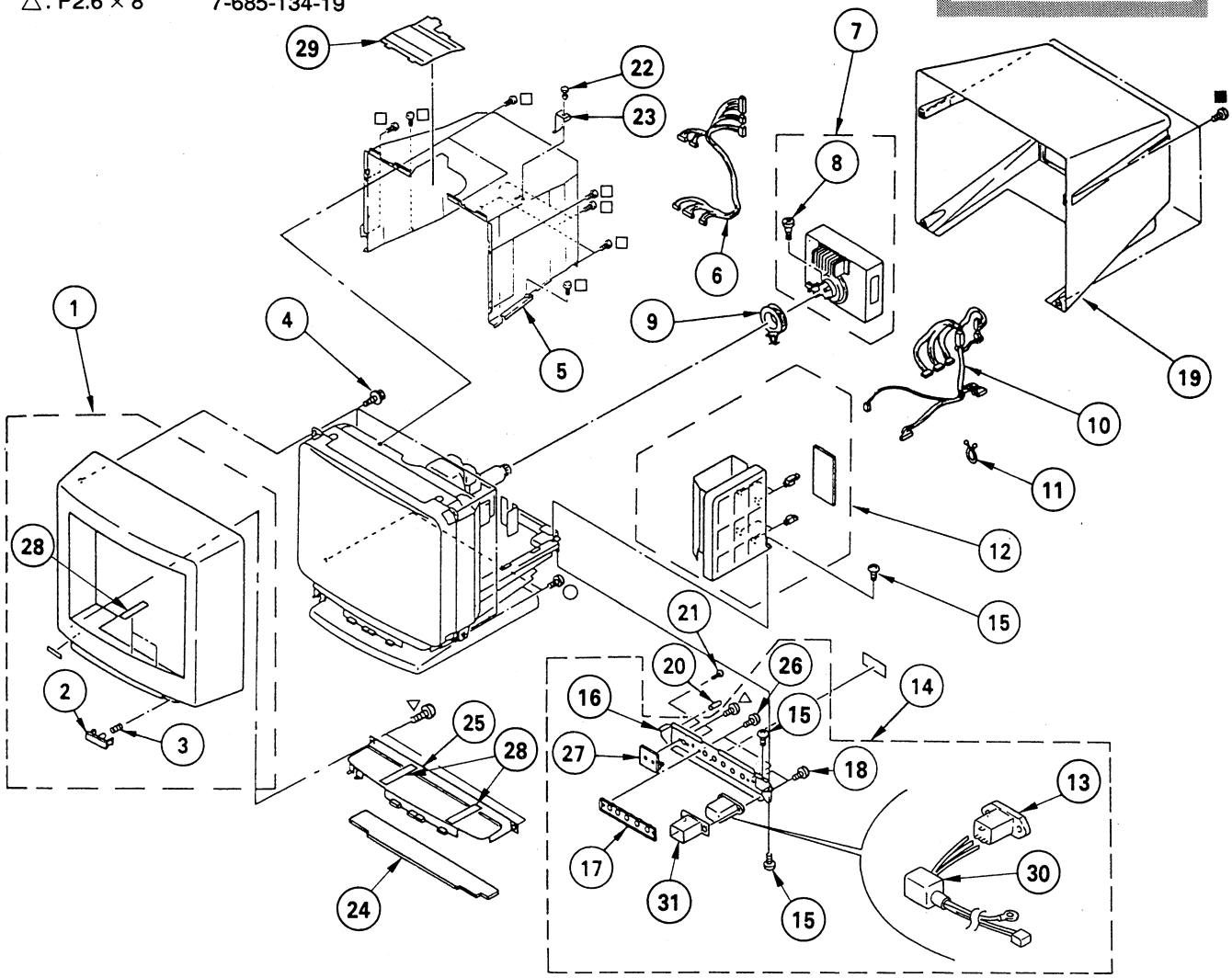
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS

□: + – BV TAPPING SCREW (M4 × 8) 7-682-561-04
■: BVTP4 × 16 7-685-663-79
○: + – BV TAPPING SCREW (M4 × 12) 7-682-563-04
△: P2.6 × 8 7-685-134-19



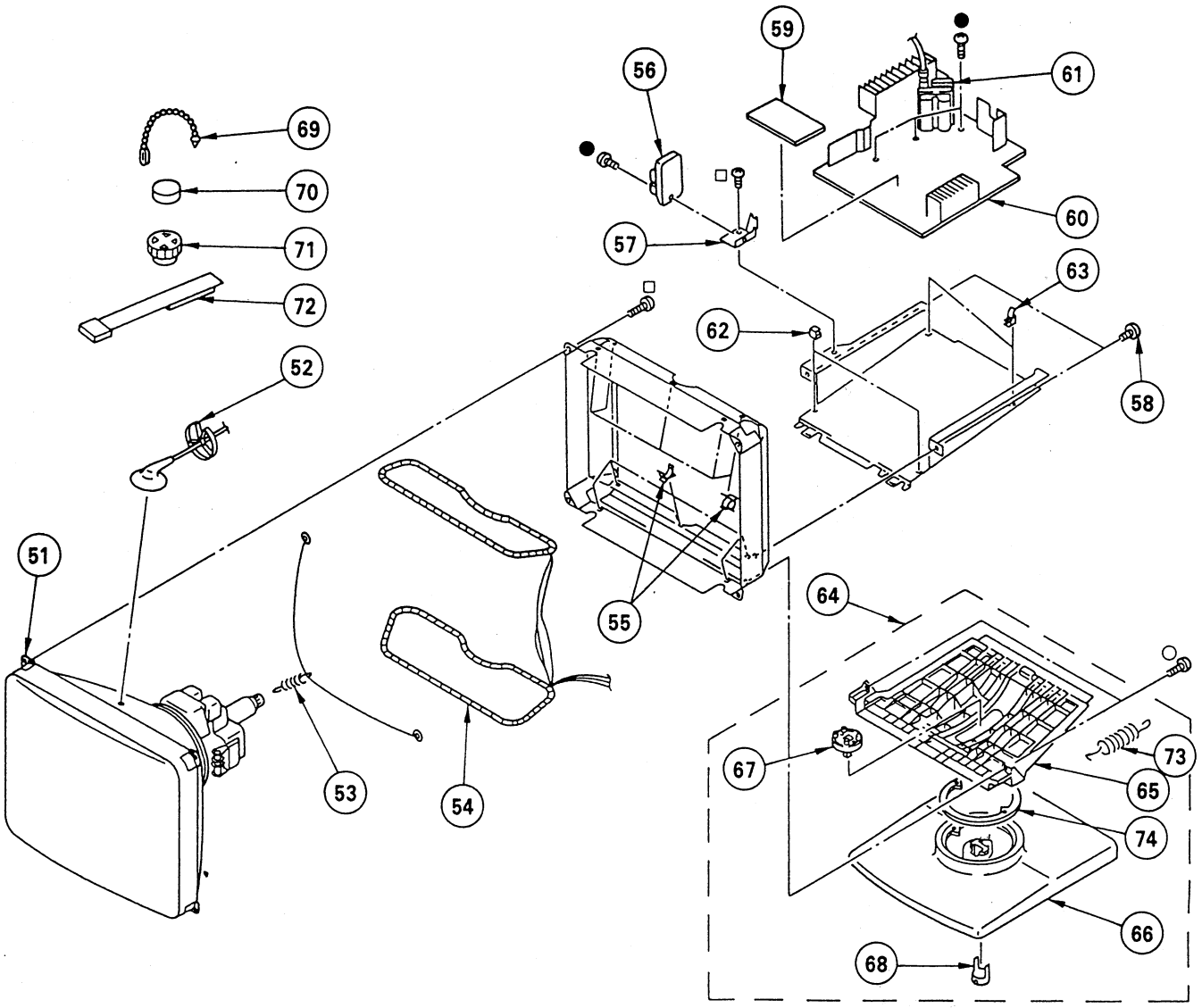
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4031-591-1	BEZEL ASSY	2,3
2	4-042-674-01	BUTTON, POWER	
3	3-571-801-01	SPRING, COMPRESSION	
4	4-365-808-01	SCREW (5), TAPPING	
5	X-4031-649-1	SHIELD ASSY, EMI	
6	1-900-076-09	CONNECTOR ASSY (MAIN HARNESS)	
7	8-934-583-00	VIDEO AMP,MCB ASSY (A BOARD)	
8	4-041-627-01	SCREW (M4X20), HEXAGON HEAD	
9	⚠1-452-729-11	NECK ASSEMBLY, PICTURE TUBE (NA3011)	
10	1-900-048-40	CONNECTOR ASSY, MICRO 8P (SUB HARNESS)	
11	3-701-417-00	PURSE LOCK (11 DIA.)	
12	⚠8-934-585-00	POWER BLOCK (G BOARD)	
13	⚠1-251-141-11	INLET, AC (3P)	
14	8-934-708-00	CONNECTOR PANEL ASSY (M BOARD)	13,15-18,26,27,30,31
15	4-389-025-01	SCREW (M4X8)(EXT TOOTH WASHER)	
16	*4-043-076-01	PANEL (STD), CONNECTOR	
17	1-537-583-11	TERMINAL BOARD ASSY, I/O	
18	4-381-960-31	SCREW (M3X12),TAPPING,(+-)(BV)	
19	X-4031-590-1	CABINET ASSY	
20	4-038-522-01	CAP (VISCA)	
21	4-043-000-01	PLUG	
22	4-374-303-01	RIVET, NYLON	
23	4-043-404-01	HOLDER, G BRACKET	
24	8-934-705-00	CONTROL PANEL ASSY (H BOARD)	
25	X-4031-589-1	BOX ASSY, CONTROL	
26	4-034-937-21	SCREW (M3), TAPPING	
27	8-934-744-00	M BOARD, COMPLETE	
28	*9-911-844-XX	CUSHION (SMALL)	
29	*4-042-119-01	COVER, ANODE CAP	
30	*4-605-946-01	COVER, 3P INLET	
31	*4-044-711-01	HOLDER, INLET	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

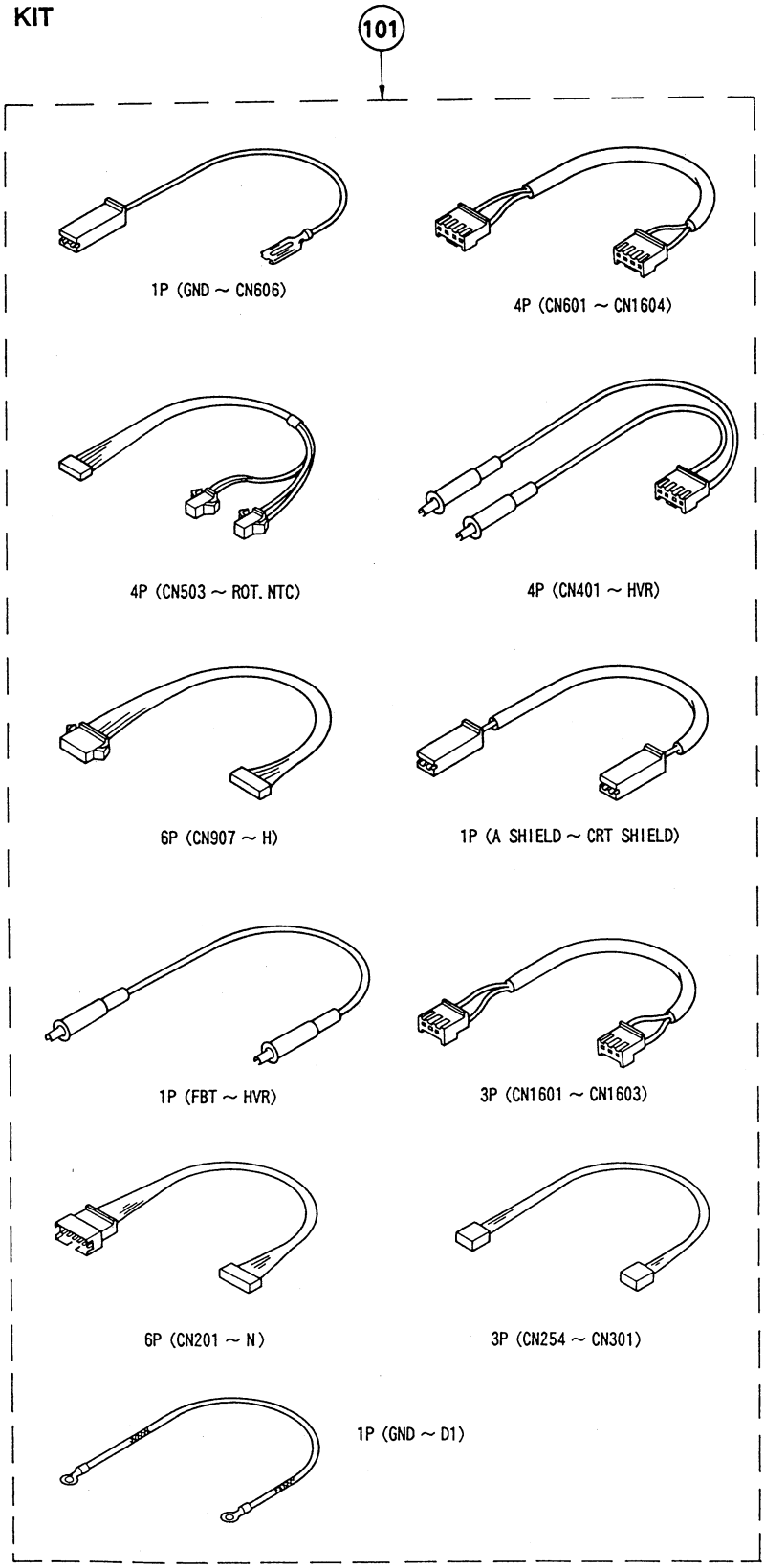
6-2. PICTURE TUBE

●: + – BV TAPPING SCREW (3 × 12) 7-685-648-79
□: + – BV TAPPING SCREW (M4 × 8) 7-682-561-04
○: + – BV TAPPING SCREW (M4 × 12) 7-682-563-04



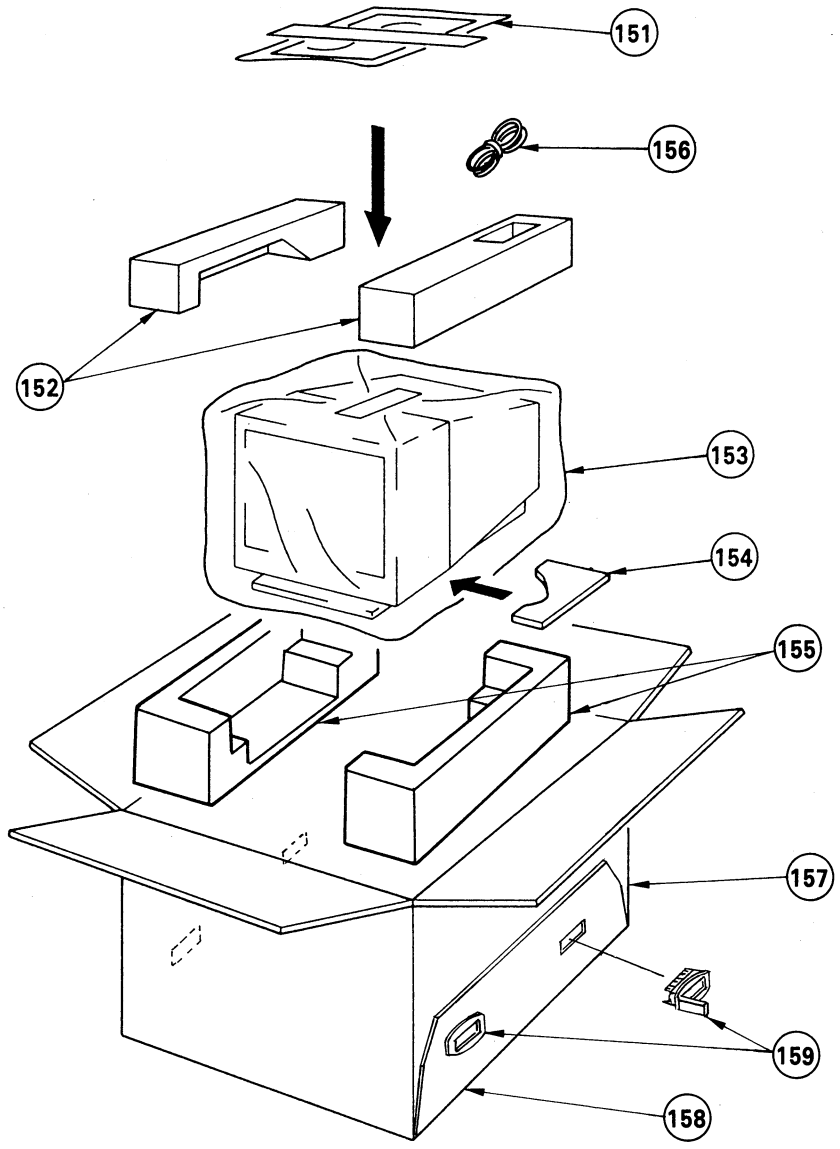
REF.NO.	PART NO.	DESCRIPTION	REMARK
51	⚠.8-736-048-90	ITC ASSY (20SQ8-R1)(CRT,DY,NA) (GDM-20E01T)	
	⚠.8-736-050-90	ITC ASSY (20SQ8-R1)(CRT,DY,NA)	
52	*3-704-372-01	HOLDER, HV CABLE	
53	4-369-318-00	SPRING, TENSION	
54	⚠.1-406-790-31	COIL, DEMAGNETIZATION	
55	*4-395-824-01	HOLDER, DEGAUSSING COIL	
56	⚠.1-223-417-11	RESISTOR ASSY (HIGH-VOLTAGE)	
57	4-042-036-01	BRACKET, FOCUS	
58	4-389-025-01	SCREW (M4X8)(EXT TOOTH WASHER)	
59	8-934-707-00	MICON MCB (N BOARD)	
60	8-934-704-00	DEFLECTION MCB ASSY (D BOARD)	
61	⚠.1-453-162-11	TRANSFORMER ASSY, FLYBACK (NX-2780A1)	
62	*3-701-903-11	HOLDER, PC BOARD	
63	*3-703-141-00	HOLDER, PCB	
64	A-1481-666-A	STAND ASSY	65-68,73,74
65	4-041-636-11	COVER, BOTTOM	
66	X-4031-449-2	BASE ASSY, STAND	
67	4-041-623-01	STOPPER (A)	
68	4-041-621-01	STOPPER (B)	
69	4-308-870-00	CLIP, LEAD WIRE	
70	1-452-032-00	MAGNET, DISK; 10MM ϕ	
71	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
72	X-4030-584-1	PERMALLOY ASSY, CORRECTION	
73	4-042-282-01	SPRING, TENSION	
74	*4-041-625-01	RING, TILT SWIVEL	
75	1-540-006-12	CAP ASSY, HIGH-VOLTAGE	

6-3. KIT


101
1P (GND ~ CN606)
4P (CN601 ~ CN1604)
4P (CN503 ~ ROT. NTC)
4P (CN401 ~ HVR)
6P (CN907 ~ H)
1P (A SHIELD ~ CRT SHIELD)
1P (FBT ~ HVR)
3P (CN1601 ~ CN1603)
6P (CN201 ~ N)
3P (CN254 ~ CN301)
1P (GND ~ D1)

REF.NO.	PART NO.	DESCRIPTION	REMARK
101	A-1500-655-A	CABLE ASSY	

6-4. ACCESSORIES AND PACKING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	*3-758-020-11	MANUAL, INSTRUCTION	
152	*4-043-390-01	CUSHION (UPPER) (ASSY)	
153	4-368-079-01	BAG, PROTECTION	
154	*4-041-505-01	PAD	
155	*4-043-391-01	CUSHION (LOWER) (ASSY)	
156	⚠1-534-827-14	CORD, POWER (7.0A/125V) (FOR U/C)	
	⚠1-551-631-22	CORD, POWER (6.0A/250V) (FOR AEP)	
157	*4-043-296-01	INDIVIDUAL CARTON	
	*4-044-926-01	INDIVIDUAL CARTON (GDM-20E01T)	
158	*4-396-077-01	JOINT	
159	*4-038-264-01	TRAY	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

SECTION 7
ELECTRICAL PARTS LIST

F A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

REF.NO.	PART NO.	DESCRIPTION				REMARK
		F BOARD, COMPLETE				
		**********				
	1-533-250-11	HOLDER, FUSE				
F1601 ⚠	1-576-233-11	FUSE (H.B.C.) (6.3A/250V)				
	4-043-455-01	COVER, FUSE				
		<CAPACITOR>				
C1601 ⚠	1-107-533-11	FILM	1MF	20%	250V	
C1605 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1606 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
		<CONNECTOR>				
CN1600 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P				
CN1601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P				
		<RESISTOR>				
R1601 ⚠	1-202-879-91	SOLID	270K	20%	1/2W	
R1602 ⚠	1-202-879-91	SOLID	270K	20%	1/2W	
		<VARISTOR>				
⚠VDR160.	1-807-180-31	VARISTOR ZNR-14DK471U				
**********						
	8-934-583-00	VIDEO AMP.MCB (A BOARD)				
		**********				
	4-382-854-01	SCREW (M3X8), P, SW (+)				
		<CAPACITOR>				
C001	1-126-101-11	ELECT	100MF	20%	16V	
C002	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C003	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C005	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C006	1-124-667-11	ELECT	10MF	20%	50V	
C008	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C009	1-136-191-11	FILM	0.22MF	10%	250V	
C010	1-162-117-00	CERAMIC	100PF	10%	500V	
C012	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C013	1-124-634-11	ELECT	1MF	20%	250V	
C014	1-124-798-11	ELECT	1MF	20%	160V	
C015	1-124-667-11	ELECT	10MF	20%	100V	
C016	1-136-189-00	FILM	0.1MF	10%	250V	
C017	1-126-803-11	ELECT	47MF	20%	16V	
C018	1-126-387-11	ELECT	2.2MF	20%	50V	
C019	1-126-387-11	ELECT	2.2MF	20%	50V	
C020	1-126-387-11	ELECT	2.2MF	20%	50V	
C021	1-126-101-11	ELECT	100MF	20%	16V	
C022	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C025	1-102-157-00	CERAMIC	560PF	10%	500V	
C028	1-163-114-00	CERAMIC CHIP	75PF	5%	50V	
C029	1-136-191-11	FILM	0.22MF	10%	250V	
C030	1-162-117-00	CERAMIC	100PF	10%	500V	
C031	1-124-667-11	ELECT	10MF	20%	100V	
C032	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C041	1-126-101-11	ELECT	100MF	20%	16V	
C042	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C048	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C049	1-136-191-11	FILM	0.22MF	10%	250V	
C050	1-162-117-00	CERAMIC	100PF	10%	500V	
C060	1-124-667-11	ELECT	10MF	20%	100V	
C061	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C062	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C063	1-124-042-51	ELECT	0.47MF	20%	50V	
C067	1-126-803-11	ELECT	47MF	20%	16V	
C070	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C071	1-126-803-11	ELECT	47MF	20%	16V	
C072	1-124-667-11	ELECT	10MF	20%	50V	
C073	1-124-667-11	ELECT	10MF	20%	50V	
C074	1-124-667-11	ELECT	10MF	20%	50V	
C075	1-126-803-11	ELECT	47MF	20%	16V	
C076	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C077	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C078	1-126-803-11	ELECT	47MF	20%	16V	
C079	1-126-163-11	ELECT	4.7MF	20%	50V	
C080	1-126-320-11	ELECT	10MF	20%	16V	
C081	1-124-464-11	ELECT	0.22MF	20%	50V	
C082	1-124-464-11	ELECT	0.22MF	20%	50V	
C083	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C084	1-124-464-11	ELECT	0.22MF	20%	50V	
C085	1-163-139-00	CERAMIC CHIP	820PF	5%	50V	
C086	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C087	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C090	1-164-162-11	CERAMIC CHIP	100PF	5%	100V	
C091	1-164-162-11	CERAMIC CHIP	100PF	5%	100V	
C092	1-164-162-11	CERAMIC CHIP	100PF	5%	100V	
C114	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C300	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C301	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C302	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C305	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C306	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C307	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C308	1-126-803-11	ELECT	47MF	20%	16V	
C309	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C310	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C311	1-128-475-11	ELECT	10MF	20%	160V
C315	1-124-667-11	ELECT	10MF	20%	100V
C316	1-126-803-11	ELECT	47MF	20%	16V
C318	1-126-803-11	ELECT	47MF	20%	16V
C701	1-162-114-00	CERAMIC	0.0047MF		2KV
C702	1-162-114-00	CERAMIC	0.0047MF		2KV
C703	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C704	1-162-114-00	CERAMIC	0.0047MF		2KV
C705	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C706	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C707	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C708	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C709	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C710	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C711	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C712	1-162-114-00	CERAMIC	0.0047MF		2KV
C713	1-162-318-11	CERAMIC	0.001MF	10%	500V
C714	1-162-318-11	CERAMIC	0.001MF	10%	500V

<CONNECTOR>

CN301	*1-564-518-11	PLUG, CONNECTOR 3P
CN302	*1-564-526-11	PLUG, CONNECTOR 11P
CN303	*1-564-522-11	PLUG, CONNECTOR 7P
CN304	*1-564-521-11	PLUG, CONNECTOR 6P
CN701	*1-564-518-11	PLUG, CONNECTOR 3P
CN702	1-691-756-11	PIN, CONNECTOR (PC BOARD) 2P

<DIODE>

D002	8-719-901-83	DIODE 1SS83
D003	8-719-901-83	DIODE 1SS83
D004	8-719-901-83	DIODE 1SS83
D005	8-719-800-76	DIODE 1SS226
D006	8-719-800-76	DIODE 1SS226
D007	8-719-901-83	DIODE 1SS83
D008	8-719-404-46	DIODE MA110
D009	8-719-404-46	DIODE MA110
D022	8-719-901-83	DIODE 1SS83
D023	8-719-901-83	DIODE 1SS83
D024	8-719-901-83	DIODE 1SS83
D027	8-719-901-83	DIODE 1SS83
D042	8-719-901-83	DIODE 1SS83
D043	8-719-901-83	DIODE 1SS83
D044	8-719-901-83	DIODE 1SS83
D047	8-719-901-83	DIODE 1SS83
D061	8-719-018-47	DIODE SC015-2
D062	8-719-901-83	DIODE 1SS83
D063	8-719-901-83	DIODE 1SS83
D701	8-719-404-46	DIODE MA110
D702	8-719-404-46	DIODE MA110

<FERRITE BEAD>

FB001	1-414-235-11	INDUCTOR, FERRITE BEAD
FB002	1-414-235-11	INDUCTOR, FERRITE BEAD
FB003	1-414-235-11	INDUCTOR, FERRITE BEAD
FB004	1-414-235-11	INDUCTOR, FERRITE BEAD
FB005	1-414-235-11	INDUCTOR, FERRITE BEAD
FB006	1-414-235-11	INDUCTOR, FERRITE BEAD
FB007	1-414-235-11	INDUCTOR, FERRITE BEAD
FB008	1-414-235-11	INDUCTOR, FERRITE BEAD
FB009	1-414-235-11	INDUCTOR, FERRITE BEAD
FB701	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB702	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB703	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB704	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB705	1-543-298-11	BEAD, FERRITE

<FILTER>

FL004	1-421-928-11	FILTER, NOISE
FL005	1-421-928-11	FILTER, NOISE
FL006	1-236-164-11	ENCAPSULATED COMPONENT
FL007	1-424-464-11	FILTER, NOISE
FL008	1-424-464-11	FILTER, NOISE
FL012	1-424-464-11	FILTER, NOISE
FL013	1-421-928-11	FILTER, NOISE
FL014	1-421-928-11	FILTER, NOISE
FL015	1-424-464-11	FILTER, NOISE
FL016	1-424-464-11	FILTER, NOISE
FL017	1-421-928-11	FILTER, NOISE

<IC>

IC001	1-467-361-21	AMPLIFIER BLOCK, PRE (PRE-1)
IC002	8-749-010-06	IC CR5527E
IC003	8-752-057-43	IC CXA1616S
IC004	8-759-143-11	IC UPC24M12HF
IC005	8-759-708-05	IC NJM78L05A
IC006	8-759-012-70	IC MC7908CT
IC007	8-759-242-74	IC TC7W04F
IC008	8-759-060-00	IC BA10324AF
IC009	8-759-032-01	IC MC74HC00AF
IC010	8-759-168-72	IC TDA6101Q
IC011	8-759-168-72	IC TDA6101Q
IC012	8-759-168-72	IC TDA6101Q
IC013	8-759-168-72	IC TDA6101Q
IC701	8-759-996-43	IC RC4558PS
IC702	8-759-242-74	IC TC7W04F

<JACK>

J001	*1-568-547-11	JACK, MINIATUER PIN
J021	*1-568-547-11	JACK, MINIATUER PIN
J041	*1-568-547-11	JACK, MINIATUER PIN
J701⚠	1-251-116-11	SOCKET, PITURE TUBE

<COIL>

L002	1-412-999-11	INDUCTOR CHIP 47N
L003	1-410-686-11	INDUCTOR 1MMH
L022	1-412-999-11	INDUCTOR CHIP 47N
L042	1-412-999-11	INDUCTOR CHIP 47N

<TRANSISTOR>

Q010	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q011	8-729-216-22	TRANSISTOR 2SA1162-G
Q060	8-729-216-22	TRANSISTOR 2SA1162-G
Q063	8-729-901-00	TRANSISTOR DTC124EK
Q701	8-729-020-07	TRANSISTOR 2SC4686A(LBSONY)
Q702	8-729-020-07	TRANSISTOR 2SC4686A(LBSONY)

<RESISTOR>

R001	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R002	1-216-001-00	METAL GLAZE	10	5%	1/10W

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A

REF.NO.	PART NO.	DESCRIPTION				REMARK
R003	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R004	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R005	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R009	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R010	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R011	1-220-277-11	METAL GLAZE	2.2K	5%	1/4W	
R012	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R013	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R015	1-247-734-11	CARBON	39	5%	1/2W	
R016	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R017	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R020	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R021	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R022	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R023	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R024	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R025	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R026	1-249-417-11	CARBON	1K	5%	1/4W	F
R029	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R030	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R031	1-220-277-11	METAL GLAZE	2.2K	5%	1/4W	
R032	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R033	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R035	1-247-734-11	CARBON	39	5%	1/2W	
R036	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R037	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R039	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R040	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R041	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R042	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R043	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R044	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R045	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R046	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R049	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R050	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R051	1-220-277-11	METAL GLAZE	2.2K	5%	1/4W	
R052	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R053	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R055	1-247-734-11	CARBON	39	5%	1/2W	
R056	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R057	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R058	1-247-734-11	CARBON	39	5%	1/2W	
R063	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R064	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R065	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R066	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R067	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R068	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R069	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R070	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R072	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R075	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R076	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R077	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R078	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R079	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R081	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R082	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R083	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R084	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R085	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R086	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R087	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R091	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R092	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R093	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R094	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R095	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R096	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R097	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R098	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R099	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R300	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R301	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R302	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R303	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R305	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R306	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R307	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R309	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R310	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R311	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R312	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R313	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R314	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R316	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R317	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R318	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R319	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R320	1-220-329-11	METAL GLAZE	56K	5%	1/2W	
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R322	1-220-329-11	METAL GLAZE	56K	5%	1/2W	
R324	1-220-329-11	METAL GLAZE	56K	5%	1/2W	
R325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R326	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R327	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R330	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R331	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R332	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R376	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R377	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R378	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R379	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R380	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R381	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R382	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R701	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R702	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R703	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R704	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	F
R706	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R727	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R728	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R730	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R731	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R733	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R734	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R735	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R736	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R737	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R738⚠	1-239-748-11	RESISTOR BLOCK (HIGH-VOLTAGE)				

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R739 ⚠	1-239-748-11	RESISTOR BLOCK (HIGH-VOLTAGE)	
		<VARIABLE RESISTOR>	
RV701	1-223-410-11	RES, ADJ, METAL FILM 110M	
		<SPARK GAP>	
SG701	1-519-422-11	GAP, SPARK	
SG702	1-519-504-11	GAP, DISCHARGE	
SG703	1-519-504-11	GAP, DISCHARGE	
SG704	1-519-504-11	GAP, DISCHARGE	
SG705	1-519-504-11	GAP, DISCHARGE	
SG706	1-519-422-11	GAP, SPARK	
SG707	1-519-504-11	GAP, DISCHARGE	
**********			
	8-934-708-00	CONNECTOR PANEL ASSY (M BOARD)	
		**********	
		<CONNECTOR>	
CN250	*1-564-520-11	PLUG, CONNECTOR 5P	
CN251	1-691-803-11	SOCKET, DIN	
CN253	*1-564-518-11	PLUG, CONNECTOR 3P	
CN254	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D251	8-719-977-49	DIODE DTZ15B	
D252	8-719-800-76	DIODE 1SS226	
D253	8-719-800-76	DIODE 1SS226	
D254	8-719-800-76	DIODE 1SS226	
D255	8-719-977-49	DIODE DTZ15B	
		<RESISTOR>	
R251	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R252	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R254	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R255	1-216-617-11	METAL CHIP 39 0.50% 1/10W	
R256	1-216-617-11	METAL CHIP 39 0.50% 1/10W	
R257	1-216-617-11	METAL CHIP 39 0.50% 1/10W	
R258	1-216-617-11	METAL CHIP 39 0.50% 1/10W	
		<SWITCH>	
S250	1-572-482-11	SWITCH, KEY BOARD (1 KEY)	
S251	1-570-157-81	SWITCH, SLIDE	
**********			
⚠	8-934-585-00	POWER BLOCK (G BOARD)	
		**********	
		(INCLUDING F BOARD)	
⚠*	4-374-846-01	COVER, CAPACITOR, CAP TYPE	
⚠	4-382-854-01	SCREW (M3X8), P, SW (+)	
⚠	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CAPACITOR>	
C601 ⚠	1-162-116-91	CERAMIC 680PF 10% 2KV	
C602 ⚠	1-107-576-11	ELECT 560MF 20% 400V	
C603 ⚠	1-124-794-91	ELECT 4.7MF 20% 100V	
C604 ⚠	1-124-513-91	ELECT 47MF 20% 50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C605 ⚠	1-124-045-91	ELECT 4.7MF 20% 50V	
C606 ⚠	1-130-471-91	MYLAR 0.001MF 5% 50V	
C607 ⚠	1-137-194-81	FILM 0.47MF 5% 50V	
C608 ⚠	1-123-605-85	ELECT 100MF 20% 100V	
C609 ⚠	1-125-700-11	ELECT 220MF 20% 200V	
C610 ⚠	1-123-605-85	ELECT 100MF 20% 100V	
C611 ⚠	1-124-785-51	ELECT 3300MF 20% 25V	
C612 ⚠	1-124-785-51	ELECT 3300MF 20% 25V	
C614 ⚠	1-124-127-91	ELECT 100MF 20% 25V	
C615 ⚠	1-124-127-91	ELECT 100MF 20% 25V	
C616 ⚠	1-123-973-91	ELECT 100MF 20% 16V	
C616 ⚠	1-124-127-91	ELECT 100MF 20% 25V	
C617 ⚠	1-124-803-85	ELECT 33MF 20% 160V	
C618 ⚠	1-123-605-85	ELECT 100MF 20% 100V	
C619 ⚠	1-124-035-91	ELECT 47MF 20% 16V	
C620 ⚠	1-130-473-91	MYLAR 0.0015MF 5% 50V	
C621 ⚠	1-162-134-51	CERAMIC 470PF 10% 2KV	
C622 ⚠	1-104-537-91	FILM CHIP 680PF 5% 50V	
C623 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
C624 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
C625 ⚠	1-123-973-91	ELECT 100MF 20% 16V	
C626 ⚠	1-162-134-51	CERAMIC 470PF 10% 2KV	
C628 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C629 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C630 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C631 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C632 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C633 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C634 ⚠	1-102-228-91	CERAMIC 470PF 10% 500V	
C635 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
C636 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
C637 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
C638 ⚠	1-161-953-71	CERAMIC 0.0047MF 20% 400V	
		<CONNECTOR>	
CN601 ⚠*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN602 ⚠*	1-564-511-51	PLUG, CONNECTOR 8P	
CN603 ⚠*	1-564-508-51	PLUG, CONNECTOR 5P	
CN604 ⚠*	1-564-506-51	PLUG, CONNECTOR 3P	
CN606 ⚠	1-695-915-21	TAB (CONTACT)	
		<DIODE>	
D601 ⚠	8-719-510-53	DIODE D4SB60L	
D602 ⚠	8-719-978-65	DIODE DTZ15B-TT11	
D603 ⚠	8-719-302-05	DIODE EU2	
D604 ⚠	8-719-302-05	DIODE EU2	
D605 ⚠	8-719-302-05	DIODE EU2	
D606 ⚠	8-719-302-05	DIODE EU2	
D607 ⚠	8-719-404-47	DIODE MA110-TX	
D608 ⚠	8-719-045-47	DIODE FML-S16S	
D609 ⚠	8-719-302-05	DIODE EU2	
D610 ⚠	8-719-302-05	DIODE EU2	
D611 ⚠	8-719-302-05	DIODE EU2	
D612 ⚠	8-719-045-48	DIODE FML-G12S	
D613 ⚠	8-719-045-48	DIODE FML-G12S	
D614 ⚠	8-719-979-50	DIODE EGP30D	
D615 ⚠	8-719-978-68	DIODE DTZ16A-TT11	
D616 ⚠	8-719-404-47	DIODE MA110-TX	
D617 ⚠	8-719-977-89	DIODE DTZ2.0B-TT11	
D620 ⚠	8-719-978-84	DIODE DTZ24A-TT11	
D621 ⚠	8-719-404-47	DIODE MA110-TX	
D622 ⚠	8-719-302-05	DIODE EU2	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
D623	⚠8-719-302-05	DIODE EU2				
D627	⚠8-719-978-65	DIODE DTZ15B-TT11				
D628	⚠8-719-404-47	DIODE MA110-TX				
D629	⚠8-719-977-89	DIODE DTZ2.0B-TT11				
D630	⚠8-719-404-47	DIODE MA110-TX				
D631	⚠8-719-404-47	DIODE MA110-TX				
		<FERRITE BEAD>				
FB601	⚠1-410-397-11	FERRITE BEAD INDUCTOR 1.1UH				
FB602	⚠1-410-397-11	FERRITE BEAD INDUCTOR 1.1UH				
FB603	⚠1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH				
FB604	⚠1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH				
FB605	⚠1-410-396-51	FERRITE BEAD INDUCTOR 0.45UH				
FB606	⚠1-412-911-21	INDUCTOR, FERRITE BEAD				
FB607	⚠1-412-911-21	INDUCTOR, FERRITE BEAD				
		<IC>				
IC601	⚠8-749-924-69	IC STR-M6523				
IC602	⚠8-749-923-50	PHOTO COUPLER PC111YS				
IC603	⚠8-749-921-86	IC SE-140N				
IC604	⚠8-759-164-53	IC NJM7863FD				
		<COIL>				
L601	⚠1-412-533-41	INDUCTOR	47UH			
L602	⚠1-412-533-41	INDUCTOR	47UH			
L605	⚠1-412-533-41	INDUCTOR	47UH			
		<TRANSISTOR>				
Q601	⚠8-729-114-87	TRANSISTOR 2SD1309-L				
Q605	⚠8-729-823-99	TRANSISTOR 2SC2909-AA				
Q606	⚠8-729-901-23	TRANSISTOR DTC143TK-T146				
Q608	⚠8-729-901-23	TRANSISTOR DTC143TK-T146				
Q609	⚠8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR				
Q610	⚠8-729-920-75	TRANSISTOR 2SC2412K-T-146-QR				
Q611	⚠8-729-920-75	TRANSISTOR 2SC2412K-T-146-QR				
		<RESISTOR>				
R601	⚠1-215-926-71	METAL OXIDE	33K	5%	3W	F
R602	⚠1-215-926-71	METAL OXIDE	33K	5%	3W	F
R603	⚠1-220-293-91	METAL GLAZE	47K	5%	1/4W	
R604	⚠1-220-264-91	METAL GLAZE	1K	5%	1/4W	
R605	⚠1-217-237-11	WIREWOUND	0.1	10%	3W	F
R606	⚠1-220-262-91	METAL GLAZE	680	5%	1/4W	
R607	⚠1-220-293-91	METAL GLAZE	47K	5%	1/4W	
R608	⚠1-218-478-91	METAL GLAZE	330	5%	1/4W	
R609	⚠1-220-277-91	METAL GLAZE	2.2K	5%	1/4W	
R610	⚠1-220-285-91	METAL GLAZE	10K	5%	1/4W	
R611	⚠1-220-285-91	METAL GLAZE	10K	5%	1/4W	
R612	⚠1-220-264-91	METAL GLAZE	1K	5%	1/4W	
R613	⚠1-123-606-51	ELECT	1000MF		20%	25V
R618	⚠1-215-880-71	METAL OXIDE	10	5%	2W	F
R619	⚠1-220-313-91	METAL GLAZE	100K	5%	1/4W	
R620	⚠1-215-875-71	METAL OXIDE	10K	5%	1W	F
R621	⚠1-220-258-91	METAL GLAZE	100	5%	1/4W	
R624	⚠1-215-880-71	METAL OXIDE	10	5%	2W	F
R627	⚠1-217-298-11	WIREWOUND	10	10%	5W	F
R628	⚠1-220-260-91	METAL GLAZE	390	5%	1/4W	
R629	⚠1-216-398-71	METAL OXIDE	5.6	5%	3W	F
R630	⚠1-216-654-91	METAL CHIP	1.3K	0.50%	1/10W	
R631	⚠1-218-754-91	METAL CHIP	120K	0.50%	1/10W	
R632	⚠1-220-264-91	METAL GLAZE	1K	5%	1/4W	
R633	⚠1-216-690-91	METAL CHIP	43K	0.50%	1/10W	
R634	⚠1-220-285-91	METAL GLAZE	10K	5%	1/4W	
R635	⚠1-218-754-91	METAL CHIP	120K	0.50%	1/10W	
R636	⚠1-202-881-91	SOLID	470K	20%	1/2W	
R637	⚠1-215-925-71	METAL OXIDE	22K	5%	3W	F
R638	⚠1-260-288-71	CARBON	0.47	5%	1/2W	
R639	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R640	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R641	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R642	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R643	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R644	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R645	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R646	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R647	⚠1-249-377-91	CARBON	0.47	5%	1/4W	F
R648	⚠1-249-443-51	CARBON	0.47	5%	1/4W	F
R649	⚠1-220-258-91	METAL GLAZE	100	5%	1/4W	
R650	⚠1-220-285-91	METAL GLAZE	10K	5%	1/4W	
R651	⚠1-220-277-91	METAL GLAZE	2.2K	5%	1/4W	
		<RELAY>				
RY601	⚠1-515-986-12	RELAY				
RY602	⚠1-515-796-11	RELAY				
		<TRANSFOMER>				
T601	⚠1-423-889-12	TRANSFORMER, CONVERTER (SRT)				

****

8-934-704-00 DEFLECTION MCB (D BOARD)
****

*4-043-154-01	HOLDER, IC				
*4-374-846-01	COVER, CAPACITOR, CAP TYPE				
*4-381-907-01	INSULATOR (A)				
*4-381-908-01	INSULATOR (B)				
*4-381-995-01	SPRING (E)				
4-382-854-01	SCREW (M3X8), P, SW (+)				
	<CAPACITOR>				
C402	1-102-106-00	CERAMIC	100PF	10%	50V
C403	1-136-153-00	FILM	0.01MF	5%	50V
C407	1-136-165-00	FILM	0.1MF	5%	50V
C408	1-130-475-00	MYLAR	0.0022MF	5%	50V
C410	1-162-134-11	CERAMIC	470PF	10%	2KV
C411	1-136-165-00	FILM	0.1MF	5%	50V
C412	1-101-804-00	CERAMIC	10PF	5%	500V
C413	1-101-804-00	CERAMIC	10PF	5%	500V
C414	1-162-318-11	CERAMIC	0.001MF	10%	500V
C415	1-136-153-00	FILM	0.01MF	5%	50V
C416	1-130-475-00	MYLAR	0.0022MF	5%	50V
C417	1-126-964-11	ELECT	10MF	20%	50V
C418	1-102-112-00	CERAMIC	330PF	10%	50V
C419	1-126-964-11	ELECT	10MF	20%	50V
C423	1-136-165-00	FILM	0.1MF	5%	50V
C425	1-136-173-00	FILM	0.47MF	5%	50V
C427	1-124-557-11	ELECT	1000MF	20%	25V
C428	1-124-557-11	ELECT	1000MF	20%	25V
C430	1-136-157-00	FILM	0.022MF	5%	50V
C431	1-128-226-11	ELECT	220MF	20%	35V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C432	1-106-228-00	MYLAR	0.22MF	10%	100V
C433	1-136-165-00	FILM	0.1MF	5%	50V
C434	1-136-153-00	FILM	0.01MF	5%	50V
C435	1-130-479-00	MYLAR	0.0047MF	5%	50V
C438	1-136-165-00	FILM	0.1MF	5%	50V
C439	1-104-709-11	ELECT	4.7MF	0	160V
C440	1-130-483-00	MYLAR	0.01MF	5%	50V
C441	1-106-367-00	MYLAR	0.01MF	10%	200V
C442	1-106-367-00	MYLAR	0.01MF	10%	200V
C443	1-128-475-11	ELECT	10MF		160V
C444	1-126-964-11	ELECT	10MF	20%	50V
C445	1-104-718-91	CERAMIC	33PF	5%	2KV
C448	1-126-943-11	ELECT	2200MF	20%	25V
C450	1-126-964-11	ELECT	10MF	20%	50V
C451	1-126-964-11	ELECT	10MF	20%	50V
C452	1-126-964-11	ELECT	10MF	20%	50V
C453	1-126-964-11	ELECT	10MF	20%	50V
C459	1-126-933-11	ELECT	100MF	20%	16V
C500	1-104-664-11	ELECT	47MF	20%	25V
C501	1-126-804-11	ELECT	100MF	20%	50V
C502	1-126-964-11	ELECT	10MF	20%	50V
C503	1-126-964-11	ELECT	10MF	20%	50V
C504	1-126-941-11	ELECT	470MF	20%	25V
C505	1-126-941-11	ELECT	470MF	20%	25V
C506	1-130-471-00	MYLAR	0.001MF	5%	50V
C507	1-126-941-11	ELECT	470MF	20%	25V
C508	1-124-126-00	ELECT	47MF	20%	16V
C509	1-124-903-11	ELECT	1MF	20%	50V
C510	1-136-159-00	FILM	0.033MF	5%	50V
C511	1-102-110-00	CERAMIC	220PF	10%	50V
C512	1-130-477-00	MYLAR	0.0033MF	5%	50V
C513	1-136-153-00	FILM	0.01MF	5%	50V
C514	1-136-171-00	FILM	0.33MF	5%	50V
C515	1-136-165-00	FILM	0.1MF	5%	50V
C516	1-124-126-00	ELECT	47MF	20%	16V
C518	1-130-473-00	MYLAR	0.0015MF	5%	50V
C519	1-136-165-00	FILM	0.1MF	5%	50V
C520	1-130-479-00	MYLAR	0.0047MF	5%	50V
C521	1-124-903-11	ELECT	1MF	20%	50V
C522	1-162-116-00	CERAMIC	680PF	10%	2KV
C523	1-126-964-11	ELECT	10MF	20%	50V
C524	1-136-165-00	FILM	0.1MF	5%	50V
C525	1-130-471-51	MYLAR	0.001MF	5%	50V
C526	1-130-479-00	MYLAR	0.0047MF	5%	50V
C528	1-130-471-00	MYLAR	0.001MF	5%	50V
C529	1-162-318-11	CERAMIC	0.001MF	10%	500V
C530	1-162-318-11	CERAMIC	0.001MF	10%	500V
C533	1-162-558-11	CERAMIC	100PF	10%	2KV
C534	1-136-173-00	FILM	0.47MF	5%	50V
C535	1-136-157-00	FILM	0.022MF	5%	50V
C536	1-106-351-00	MYLAR	0.0022MF	10%	100V
C537	1-126-941-11	ELECT	470MF	20%	25V
C538	1-107-433-11	FILM	0.006MF	3%	2KV
C539	1-162-558-11	CERAMIC	100PF	10%	2KV
C540	1-136-553-11	FILM	0.0015MF	5%	630V
C541	1-162-114-00	CERAMIC	0.0047MF		2KV
C542	1-128-578-11	ELECT	1MF	20%	100V
C546	1-106-367-00	MYLAR	0.01MF	10%	200V
C547	1-106-367-00	MYLAR	0.01MF	10%	200V
C548	1-104-796-11	ELECT	220MF	20%	63V
C550	1-128-578-11	ELECT	1MF	20%	100V
C551	1-124-557-11	ELECT	1000MF	20%	25V
C552	1-124-557-11	ELECT	1000MF	20%	25V
C553	1-107-846-11	CAP, METALIZED PP FILM	0.10MF		
C554	1-107-505-11	FILM	0.39MF	5%	400V
C555	1-107-803-11	FILM	0.18MF	5%	400V
C556	0-551-819-00	CAP, METALIZED PP FILM	0.36MF		
C557	0-551-820-00	CAP, METALIZED PP FILM	0.72MF		
C558	0-551-821-00	CAP, METALIZED PP FILM	1.50MF		
C559	1-136-173-00	FILM	0.47MF	5%	50V
C561	1-123-024-21	ELECT	33MF		160V
C565	1-136-165-00	FILM	0.1MF	5%	50V
C573	1-162-117-00	CERAMIC	100PF	10%	500V
C800	1-106-359-00	MYLAR	0.0047MF	10%	200V
C801	1-102-114-00	CERAMIC	470PF	10%	50V
C802	1-130-471-00	MYLAR	0.001MF	5%	50V
C803	1-136-105-00	FILM	0.33MF	5%	200V
C804	1-130-477-00	FILM	0.0033MF	5%	50V
C805	1-136-538-11	FILM	0.001MF	3%	2KV
C806	1-123-024-21	ELECT	33MF		160V
C807	1-136-165-00	FILM	0.1MF	5%	50V
C808	1-136-165-00	FILM	0.1MF	5%	50V
C809	1-106-363-00	MYLAR	0.0068MF		200V
C810	1-102-106-00	CERAMIC	100PF	10%	50V
C811	1-102-114-00	CERAMIC	470PF	10%	50V
C812	1-104-665-11	ELECT	100MF	20%	25V
C813	1-136-165-00	FILM	0.1MF	5%	50V
C814	1-124-903-11	ELECT	1MF	20%	50V
C815	1-106-391-12	MYLAR	0.1MF	10%	200V
C816	1-136-165-00	FILM	0.1MF	5%	50V
C817	1-136-165-00	FILM	0.1MF	5%	50V
C818	1-126-967-11	ELECT	47MF	20%	50V
C819	1-126-964-11	ELECT	10MF	20%	50V
C820	1-136-165-00	FILM	0.1MF	5%	50V
C821	1-101-003-00	CERAMIC	0.0047MF		50V
C822	1-102-228-00	CERAMIC	470PF	10%	500V
C823	1-126-964-11	ELECT	10MF	20%	50V
C824	1-126-967-11	ELECT	47MF	20%	50V
C825	1-126-964-11	ELECT	10MF	20%	50V
C826	1-124-903-11	ELECT	1MF	20%	50V
C827	1-102-106-00	CERAMIC	100PF	10%	50V
C828	1-124-903-11	ELECT	1MF	20%	50V
C829	1-126-964-11	ELECT	10MF	20%	50V
C830	1-136-165-00	FILM	0.1MF	5%	50V
C841	1-136-165-00	FILM	0.1MF	5%	50V
C1501	1-130-483-00	MYLAR	0.01MF	5%	50V
C1502	1-130-483-00	MYLAR	0.01MF	5%	50V
C1503	1-130-483-00	MYLAR	0.01MF	5%	50V
C1504	1-130-483-00	MYLAR	0.01MF	5%	50V
C1505	1-130-483-00	MYLAR	0.01MF	5%	50V
C1602⚠	1-137-241-11	FILM	0.47MF	20%	250V
C1641	1-136-165-00	FILM	0.1MF	5%	50V
C1647	1-136-165-00	FILM	0.1MF	5%	50V

<CONNECTOR>

CN400	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P
CN401	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN500	*1-564-511-11	PLUG, CONNECTOR 8P
CN501	*1-568-536-11	PLUG (MINIATURE DY) 6P
CN502	1-764-101-11	PIN, CONNECTOR (PC BOARD) 2P
CN503	*1-564-507-11	PLUG, CONNECTOR 4P
CN504	*1-564-508-11	PLUG, CONNECTOR 5P
CN505	*1-564-509-11	PLUG, CONNECTOR 6P
CN801	*1-564-512-11	PLUG, CONNECTOR 9P
CN802	*1-764-042-11	PIN, CONNECTOR (STAKING) 20P
CN803	*1-764-042-11	PIN, CONNECTOR (STAKING) 20P

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1603	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN1604*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
		<DIODE>	
D404	8-719-911-19	DIODE 1SS119	
D405	8-719-911-19	DIODE 1SS119	
D406	8-719-911-19	DIODE 1SS119	
D407	8-719-028-72	DIODE RGP02-17EL-6433	
D408	8-719-979-85	DIODE EGP20G	
D409	8-719-110-36	DIODE RD13ESB2	
D410	8-719-908-03	DIODE GP08D	
D411	8-719-028-72	DIODE RGP02-17EL-6433	
D412	8-719-908-03	DIODE GP08D	
D413	8-719-911-19	DIODE 1SS119	
D414	8-719-908-03	DIODE GP08D	
D415	8-719-911-19	DIODE 1SS119	
D416	8-719-110-49	DIODE RD18ESB2	
D417	8-719-911-19	DIODE 1SS119	
D418	8-719-911-19	DIODE 1SS119	
D419	8-719-110-46	DIODE RD16ESB3	
D420	8-719-911-19	DIODE 1SS119	
D421	8-719-911-19	DIODE 1SS119	
D422	8-719-109-81	DIODE RD4.7ESB2	
D425	8-719-920-34	DIODE ERA15-01TP1	
D501	8-719-109-89	DIODE RD5.6ESB2	
D502	8-719-951-30	DIODE ERA91-02	
D503	8-719-920-67	DIODE ERC91-02	
D504	8-719-110-36	DIODE RD13ESB2	
D505	8-719-979-57	DIODE EGP30G	
D506	8-719-920-67	DIODE ERC91-02	
D507	8-719-979-85	DIODE EGP20G	
D508	8-719-979-85	DIODE EGP20G	
D509	8-719-109-69	DIODE RD3.6ESB2	
D510	8-719-984-73	DIODE SB560	
D511	8-719-045-42	DIODE DD52RC	
D512	8-719-911-19	DIODE 1SS119	
D513	8-719-911-19	DIODE 1SS119	
D514	8-719-018-82	DIODE RGP02-20EL-6394	
D515	8-719-911-19	DIODE 1SS119	
D516	8-719-979-57	DIODE EGP30G	
D517	8-719-911-19	DIODE 1SS119	
D518	8-719-911-19	DIODE 1SS119	
D519	8-719-911-19	DIODE 1SS119	
D520	8-719-911-19	DIODE 1SS119	
D521	8-719-911-19	DIODE 1SS119	
D522	8-719-911-19	DIODE 1SS119	
D523	8-719-911-19	DIODE 1SS119	
D524	8-719-908-03	DIODE GP08D	
D525	8-719-920-67	DIODE ERC91-02	
D801	8-719-110-46	DIODE RD16ESB3	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-110-46	DIODE RD16ESB3	
D807	8-719-941-74	DIODE ERB91-02	
D808	8-719-920-67	DIODE ERC91-02	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-110-46	DIODE RD16ESB3	
D814	8-719-911-19	DIODE 1SS119	
D815	8-719-109-89	DIODE RD5.6ESB2	
D816	8-719-911-19	DIODE 1SS119	
D817	8-719-109-85	DIODE RD5.1ESB2	
D819	8-719-911-19	DIODE 1SS119	
D820	8-719-911-19	DIODE 1SS119	
D821	8-719-911-19	DIODE 1SS119	
D823	8-719-109-89	DIODE RD5.6ESB2	
D824	8-719-911-19	DIODE 1SS119	
D825	8-719-200-02	DIODE 10E-2	
D826	8-719-109-51	DIODE RD2.0ESB2	
D827	8-719-109-89	DIODE RD5.6ESB2	
D828	8-719-911-19	DIODE 1SS119	
D829	8-719-911-19	DIODE 1SS119	
D1501	8-719-109-81	DIODE RD4.7ESB2	
D1502	8-719-109-81	DIODE RD4.7ESB2	
D1503	8-719-109-81	DIODE RD4.7ESB2	
D1504	8-719-109-81	DIODE RD4.7ESB2	
D1505	8-719-109-81	DIODE RD4.7ESB2	
D1624	8-719-911-19	DIODE 1SS119	
D1629	8-719-911-19	DIODE 1SS119	
		<FERRITE BEAD>	
FB401	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB501	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB502	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB503	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		<IC>	
IC401	8-759-822-38	IC LA6510	
IC404	8-759-503-91	IC TL082ACP	
IC406	8-759-908-15	IC TL431CLP	
IC407	8-759-980-58	IC TDA8172	
IC408	8-759-013-06	IC MC7805CT	
IC409	8-759-143-11	IC UPC24M12HF	
IC410	8-759-012-71	IC MC7912CT	
IC500	8-759-143-11	IC UPC24M12HF	
IC501	8-759-012-71	IC MC7912CT	
IC502	8-759-503-91	IC TL082ACP	
IC503	8-759-177-43	IC CXA1544P	
IC505	8-759-803-42	IC LA6500-FA	
IC506	8-729-021-70	TRANSISTOR IRHT5305	
IC801	8-759-240-49	IC TC4049BP	
IC802	8-759-182-61	IC DLAB43A	
IC803	8-759-135-80	IC UPC358C	
IC804	1-810-321-12	PROTECTOR MODULE, HV	
IC806	8-759-981-64	IC LM2903DQ	
		<JUMPER>	
JW129	1-412-537-31	INDUCTOR 100UH	
		<COIL>	
L451	1-408-406-00	INDUCTOR 5.6UH	
L501	1-409-597-11	COIL, HORIZONTAL LINEARITY	
L502	1-424-321-11	COIL, CHOKE 1000UH	
L503	1-406-892-11	COIL, CHOKE 4MMH	
L504	1-412-537-31	INDUCTOR 100UH	
L505	1-412-537-31	INDUCTOR 100UH	
L506	1-412-537-31	INDUCTOR 100UH	
L507	1-409-598-11	COIL, HORIZONTAL LINEARITY	
L508	1-406-675-11	COIL, CHOKE 4.7MMH	
L509	1-412-537-31	INDUCTOR 100UH	
L801	1-412-537-31	INDUCTOR 100UH	

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D

REF.NO.	PART NO.	DESCRIPTION				REMARK
L803	1-412-527-11	INDUCTOR	15UH			
		<IC LINK>				
PS500⚠	1-532-841-21	LINK, IC 1.6A				
PS501⚠	1-532-984-91	LINK, IC 2.0A				
PS502⚠	1-532-984-91	LINK, IC 2.0A				
PS503⚠	1-532-637-91	LINK, IC 1.0A				
PS504⚠	1-532-637-91	LINK, IC 1.0A				
PS800⚠	1-532-839-21	LINK, IC 1.0A				
		<TRANSISTOR>				
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q404	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q406	8-729-140-96	TRANSISTOR 2SD774-34				
Q408	8-729-020-07	TRANSISTOR 2SC4686A(LBSONY)				
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q410	8-729-017-69	TRANSISTOR IRFI9620				
Q411	8-729-022-28	TRANSISTOR IRFI620				
Q412	8-729-020-07	TRANSISTOR 2SC4686A(LBSONY)				
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q511	8-729-023-09	TRANSISTOR IRFI9630S-LF				
Q512	8-729-023-08	TRANSISTOR 2SC3997-CC				
Q513	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q514	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q515	8-729-820-73	TRANSISTOR 2SC3746				
Q517	8-729-140-96	TRANSISTOR 2SD774-34				
Q518	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q519	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q522	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q803	8-729-022-47	TRANSISTOR 2SK2077(LBSONY)				
Q804	8-729-023-09	TRANSISTOR IRFI9630S-LF				
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q806	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q810	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q812	8-729-022-18	TRANSISTOR IRLI520				
Q1501	8-729-022-18	TRANSISTOR IRLI520				
Q1603	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1607	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R404	1-249-393-11	CARBON	10	5%	1/4W	F
R405	1-249-429-11	CARBON	10K	5%	1/4W	
R407	1-249-425-11	CARBON	4.7K	5%	1/4W	
R410	1-249-429-11	CARBON	10K	5%	1/4W	
R411	1-249-431-11	CARBON	15K	5%	1/4W	
R412	1-249-438-11	CARBON	56K	5%	1/4W	
R413	1-247-903-00	CARBON	1M	5%	1/4W	
R414	1-249-437-11	CARBON	47K	5%	1/4W	
R416	1-202-844-00	SOLID	330K	20%	1/2W	
R417	1-202-844-00	SOLID	330K	20%	1/2W	
R418	1-202-844-00	SOLID	330K	20%	1/2W	
R419	1-247-807-31	CARBON	100	5%	1/4W	
R420	1-249-417-11	CARBON	1K	5%	1/4W	
R421	1-249-429-11	CARBON	10K	5%	1/4W	
R422	1-249-435-11	CARBON	33K	5%	1/4W	
R424	1-259-880-11	CARBON	2.2M	5%	1/4W	
R425	1-259-880-11	CARBON	2.2M	5%	1/4W	
R426	1-259-880-11	CARBON	2.2M	5%	1/4W	
R427	1-249-437-11	CARBON	47K	5%	1/4W	
R430	1-249-385-11	CARBON	2.2	5%	1/4W	
R431	1-249-385-11	CARBON	2.2	5%	1/4W	
R433	1-215-909-11	METAL OXIDE	47	5%	3W	F
R434	1-249-425-11	CARBON	4.7K	5%	1/4W	
R436	1-249-383-11	CARBON	1.5	5%	1/4W	F
R438	1-249-425-11	CARBON	4.7K	5%	1/4W	
R439	1-249-417-11	CARBON	1K	5%	1/4W	
R440	1-215-465-00	METAL	68K	1%	1/4W	
R442	1-215-445-00	METAL	10K	1%	1/4W	
R443	1-247-887-00	CARBON	220K	5%	1/4W	
R444	1-216-452-11	METAL OXIDE	180	5%	2W	F
R445	1-249-431-11	CARBON	15K	5%	1/4W	
R446	1-215-445-00	METAL	10K	1%	1/4W	
R447	1-249-417-11	CARBON	1K	5%	1/4W	
R449	1-215-461-00	METAL	47K	1%	1/4W	
R450	1-215-445-00	METAL	10K	1%	1/4W	
R451	1-249-383-11	CARBON	1.5	5%	1/4W	F
R452	1-249-421-11	CARBON	2.2K	5%	1/4W	
R453	1-215-910-00	METAL OXIDE	68	5%	3W	F
R454	1-215-461-00	METAL	47K	1%	1/4W	
R455	1-215-415-00	METAL	560	1%	1/4W	
R458	1-215-467-00	METAL	82K	1%	1/4W	
R459	1-215-439-00	METAL	5.6K	1%	1/4W	
R460	1-215-422-00	METAL	1.1K	1%	1/4W	
R461	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R462	1-214-798-21	METAL	1.8	1%	1/2W	
R463	1-249-383-11	CARBON	1.5	5%	1/4W	F
R464	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R465	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R466	1-249-429-11	CARBON	10K	5%	1/4W	
R467	1-249-421-11	CARBON	2.2K	5%	1/4W	
R468	1-249-429-11	CARBON	10K	5%	1/4W	
R469	1-249-441-11	CARBON	100K	5%	1/4W	
R470	1-249-417-11	CARBON	1K	5%	1/4W	F
R471	1-249-409-11	CARBON	220	5%	1/4W	
R472	1-249-409-11	CARBON	220	5%	1/4W	
R479	1-249-425-11	CARBON	4.7K	5%	1/4W	
R481	1-249-413-11	CARBON	470	5%	1/4W	F
R482	1-249-423-11	CARBON	3.3K	5%	1/4W	
R483	1-249-421-11	CARBON	2.2K	5%	1/4W	
R484	1-214-798-21	METAL	1.8	1%	1/2W	
R502	1-249-417-11	CARBON	1K	5%	1/4W	
R503	1-249-429-11	CARBON	10K	5%	1/4W	
R504	1-249-429-11	CARBON	10K	5%	1/4W	
R505	1-249-405-11	CARBON	100	5%	1/4W	F
R506	1-215-455-00	METAL	27K	1%	1/4W	
R507	1-260-288-11	CARBON	0.47	5%	1/2W	
R508	1-260-288-11	CARBON	0.47	5%	1/2W	
R509	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R510	1-215-445-00	METAL	10K	1%	1/4W	
R511	1-215-883-11	METAL OXIDE	33	5%	2W	F
R512	1-215-861-00	METAL OXIDE	47	5%	1W	F
R513	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R514	1-216-447-00	METAL OXIDE	27	5%	2W	F
R515	1-208-964-11	METAL OXIDE	4.7	10%	5W	F
R516	1-208-964-11	METAL OXIDE	4.7	10%	5W	F
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-215-860-11	METAL OXIDE	33	5%	1W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R519	1-249-434-11	CARBON	27K	5%	1/4W	
R520	1-260-296-11	CARBON	2.2	5%	1/2W	
R521	1-249-437-11	CARBON	47K	5%	1/4W	
R522	1-249-429-11	CARBON	10K	5%	1/4W	
R523	1-249-425-11	CARBON	4.7K	5%	1/4W	
R524	1-249-433-11	CARBON	22K	5%	1/4W	
R525	1-249-426-11	CARBON	5.6K	5%	1/4W	
R526	1-215-859-00	METAL OXIDE	22	5%	1W	F
R527	1-249-397-11	CARBON	22	5%	1/4W	F
R529	1-215-455-00	METAL	27K	1%	1/4W	
R530	1-215-453-00	METAL	22K	1%	1/4W	
R531	1-249-423-11	CARBON	3.3K	5%	1/4W	
R532	1-215-445-00	METAL	10K	1%	1/4W	
R533	1-215-445-00	METAL	10K	1%	1/4W	
R534	1-215-452-00	METAL	20K	1%	1/4W	
R535	1-215-452-00	METAL	20K	1%	1/4W	
R536	1-249-417-11	CARBON	1K	5%	1/4W	
R539	1-249-417-11	CARBON	1K	5%	1/4W	
R540	1-247-895-00	CARBON	470K	5%	1/4W	
R541	1-249-429-11	CARBON	10K	5%	1/4W	
R575	1-215-453-00	METAL	22K	1%	1/4W	
R576	1-215-439-00	METAL	5.6K	1%	1/4W	
R578	1-215-891-11	METAL OXIDE	680	5%	2W	F
R581	1-249-414-11	CARBON	560	5%	1/4W	
R582	1-249-429-11	CARBON	10K	5%	1/4W	
R583	1-249-414-11	CARBON	560	5%	1/4W	F
R584	1-249-415-11	CARBON	680	5%	1/4W	
R585	1-249-421-11	CARBON	2.2K	5%	1/4W	
R586	1-247-807-31	CARBON	100	5%	1/4W	
R587	1-249-421-11	CARBON	2.2K	5%	1/4W	
R588	1-249-393-11	CARBON	10	5%	1/4W	F
R591	1-215-424-00	METAL	1.3K	1%	1/4W	
R592	1-215-428-00	METAL	2K	1%	1/4W	
R593	1-249-426-11	CARBON	5.6K	5%	1/4W	
R595	1-215-451-00	METAL	18K	1%	1/4W	
R596	1-215-459-00	METAL	39K	1%	1/4W	
R597	1-215-445-00	METAL	10K	1%	1/4W	
R598	1-215-459-00	METAL	39K	1%	1/4W	
R599	1-249-437-11	CARBON	47K	5%	1/4W	
R801	1-249-417-11	CARBON	1K	5%	1/4W	
R802	1-249-393-11	CARBON	10	5%	1/4W	F
R803	1-249-402-11	CARBON	56	5%	1/4W	F
R804	1-249-433-11	CARBON	22K	5%	1/4W	
R805	1-249-417-11	CARBON	1K	5%	1/4W	
R806	1-249-426-11	CARBON	5.6K	5%	1/4W	
R807	1-249-417-11	CARBON	1K	5%	1/4W	
R808	1-247-807-31	CARBON	100	5%	1/4W	
R809	1-249-429-11	CARBON	10K	5%	1/4W	
R810	1-249-429-11	CARBON	10K	5%	1/4W	
R811	1-249-393-11	CARBON	10	5%	1/4W	
R812	1-249-428-11	CARBON	8.2K	5%	1/4W	
R813	1-249-397-11	CARBON	22	5%	1/4W	F
R814	1-249-427-11	CARBON	6.8K	5%	1/4W	
R815	1-215-889-00	METAL OXIDE	330	5%	2W	F
R816	1-216-432-00	METAL OXIDE	820	5%	1W	F
R817	1-216-432-00	METAL OXIDE	820	5%	1W	F
R821	1-215-889-00	METAL OXIDE	330	5%	2W	F
R822	1-249-423-11	CARBON	3.3K	5%	1/4W	
R823	1-249-425-11	CARBON	4.7K	5%	1/4W	
R824	1-249-441-11	CARBON	100K	5%	1/4W	
R826 ⚠	1-215-431-91	METAL	2.7K	1%	1/4W	
R827	1-249-441-11	CARBON	100K	5%	1/4W	
R828	1-247-887-00	CARBON	220K	5%	1/4W	
R829	1-249-441-11	CARBON	100K	5%	1/4W	
R830	1-249-433-11	CARBON	22K	5%	1/4W	
R831	1-249-426-11	CARBON	5.6K	5%	1/4W	
R832 ⚠	1-215-455-91	METAL	27K	1%	1/4W	
R833	1-249-417-11	CARBON	1K	5%	1/4W	
R834	1-249-426-11	CARBON	5.6K	5%	1/4W	
R835	1-249-421-11	CARBON	2.2K	5%	1/4W	
R836	1-249-429-11	CARBON	10K	5%	1/4W	
R837	1-249-433-11	CARBON	22K	5%	1/4W	
R839	1-249-441-11	CARBON	100K	5%	1/4W	
R840	1-249-417-11	CARBON	1K	5%	1/4W	
R841	1-249-417-11	CARBON	1K	5%	1/4W	
R842 ⚠	1-215-453-91	METAL	22K	1%	1/4W	
R843 ⚠	1-215-448-91	METAL	13K	1%	1/4W	
R844	1-249-429-11	CARBON	10K	5%	1/4W	
R845	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R846	1-216-344-00	METAL OXIDE	0.39	5%	1W	F
R847	1-249-429-11	CARBON	10K	5%	1/4W	
R848	1-249-441-11	CARBON	100K	5%	1/4W	
R849	1-247-887-00	CARBON	220K	5%	1/4W	
R850	1-202-826-00	SOLID	4.7K	20%	1/2W	
R851	1-202-826-00	SOLID	4.7K	20%	1/2W	
R852	1-215-889-00	METAL OXIDE	330	5%	2W	F
R853	1-249-441-11	CARBON	100K	5%	1/4W	
R854	1-249-417-11	CARBON	1K	5%	1/4W	
R855	1-249-433-11	CARBON	22K	5%	1/4W	
R857	1-215-913-11	METAL OXIDE	220	5%	3W	F
R1500	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1501	1-249-429-11	CARBON	10K	5%	1/4W	
R1502	1-215-445-00	METAL	10K	1%	1/4W	
R1503	1-249-417-11	CARBON	1K	5%	1/4W	
R1504	1-249-417-11	CARBON	1K	5%	1/4W	
R1505	1-249-417-11	CARBON	1K	5%	1/4W	
R1506	1-249-417-11	CARBON	1K	5%	1/4W	
R1507	1-249-437-11	CARBON	47K	5%	1/4W	
R1508	1-249-437-11	CARBON	47K	5%	1/4W	
R1509	1-249-437-11	CARBON	47K	5%	1/4W	
R1510	1-249-437-11	CARBON	47K	5%	1/4W	
R1511	1-215-449-00	METAL	15K	1%	1/4W	
R1512	1-247-807-31	CARBON	100	5%	1/4W	
R1518	1-214-847-00	METAL	200	1%	1/2W	
R1519	1-214-847-00	METAL	200	1%	1/2W	
R1520	1-249-417-11	CARBON	1K	5%	1/4W	
R1521	1-249-437-11	CARBON	47K	5%	1/4W	
R1522	1-214-847-00	METAL	200	1%	1/2W	
R1600	1-249-429-11	CARBON	10K	5%	1/4W	
R1603	1-249-429-11	CARBON	10K	5%	1/4W	
R1604	1-249-429-11	CARBON	10K	5%	1/4W	
R1605	1-249-417-11	CARBON	1K	5%	1/4W	
R1639	1-249-429-11	CARBON	10K	5%	1/4W	
R1646	1-249-435-11	CARBON	33K	5%	1/4W	
R1647	1-249-429-11	CARBON	10K	5%	1/4W	

<RELAY>

⚠RY501	1-515-805-11	RELAY, POWER	
⚠RY1601	1-515-849-11	RELAY	
⚠RY1602	1-515-669-21	RELAY	

<SPARK GAP>

SG400	1-519-422-11	GAP, SPARK	
SG800	1-519-422-11	GAP, SPARK	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

D H N

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSFOMER>			
T400	1-423-854-11	TRANSFORMER, FERRITE (DFT)			
T401	1-423-405-11	TRANSFORMER, FERRITE (FRT)			
T500	1-423-853-11	TRANSFORMER, FERRITE (HDT)			
T501	1-423-888-11	TRANSFORMER, FERRITE (HOT)			
T502	1-423-856-11	TRANSFORMER, FERRITE (HST)			
T800 ⚠	1-453-162-11	TRANSFORMER ASSY, FLYBACK (NX-2780A1)			
T801	1-423-855-11	TRANSFORMER, FERRITE (HRT)			
T1601 ⚠	1-426-643-11	TRANSFORMER, LINE FILTER (LFT)			
		<THERMISTOR>			
⚠THP601.	1-809-260-11	THERMISTOR, POWER			
⚠THP602.	1-809-827-11	THERMISTOR, POSITIVE			
		<VARISTOR>			
⚠VDR601.	1-809-201-21	VARISTOR			
		**********			
	8-934-705-00	CONTROL PANEL ASSY (H BOARD)			
		**********			
	4-041-624-01	HOLDER (H1), LED			
	4-041-657-01	HOLDER (H2), LED			
		<CAPACITOR>			
C201	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C202	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C203	1-124-584-00	ELECT 100MF		20%	10V
C204	1-124-584-00	ELECT 100MF		20%	10V
C205	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C206	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C207	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C208	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C209	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C210	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C211	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C212	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C213	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C214	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C215	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
C216	1-163-125-00	CERAMIC CHIP 220PF		5%	50V
		<CONNECTOR>			
CN201	*1-564-521-11	PLUG, CONNECTOR 6P			
		<DIODE>			
D201	8-719-311-15	DIODE SEL1422G-C,D			
D202	8-719-311-90	DIODE SEL1922D-C			
D203	8-719-311-90	DIODE SEL1922D-C			
D204	8-719-311-90	DIODE SEL1922D-C			
D205	8-719-311-90	DIODE SEL1922D-C			
D206	8-719-311-90	DIODE SEL1922D-C			
D207	8-719-045-19	DIODE SPB-26MVWF			
D209	8-719-977-03	DIODE DTZ5.6B			
		<IC>			
IC201	8-759-032-59	IC MC74HC595AF			
IC202	8-759-173-48	IC MC74HC597F-T2			
		<TRANSISTOR>			
Q201	8-729-901-00	TRANSISTOR DTC124EK			
Q202	8-729-901-00	TRANSISTOR DTC124EK			
		<RESISTOR>			
R201	1-216-041-00	METAL GLAZE	470	5%	1/10W
R202	1-216-041-00	METAL GLAZE	470	5%	1/10W
R203	1-216-041-00	METAL GLAZE	470	5%	1/10W
R204	1-216-041-00	METAL GLAZE	470	5%	1/10W
R205	1-216-041-00	METAL GLAZE	470	5%	1/10W
R206	1-216-041-00	METAL GLAZE	470	5%	1/10W
R207	1-216-037-00	METAL GLAZE	330	5%	1/10W
R208	1-216-041-00	METAL GLAZE	470	5%	1/10W
R210	1-216-041-00	METAL GLAZE	470	5%	1/10W
R226	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R227	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R228	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R229	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R230	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R233	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R234	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R236	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R237	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R238	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R239	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R240	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R241	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R242	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R243	1-216-073-00	METAL GLAZE	10K	5%	1/10W
		<SWITCH>			
S201	1-571-532-21	SWITCH, TACTIL			
S202	1-571-532-21	SWITCH, TACTIL			
S203	1-571-532-21	SWITCH, TACTIL			
S204	1-571-532-21	SWITCH, TACTIL			
S205	1-571-532-21	SWITCH, TACTIL			
S206	1-571-532-21	SWITCH, TACTIL			
S207	1-571-532-21	SWITCH, TACTIL			
S208	1-571-532-21	SWITCH, TACTIL			
		**********			
	8-934-707-00	MICON MCB (N BOARD)			
		**********			
		<CAPACITOR>			
C901	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C903	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C904	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V
C905	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C906	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V
C907	1-124-903-11	ELECT 1MF		20%	50V
C908	1-163-235-11	CERAMIC CHIP 22PF		5%	50V
C909	1-130-479-00	MYLAR 0.0047MF		5%	50V
C910	1-163-235-11	CERAMIC CHIP 22PF		5%	50V
C911	1-163-235-11	CERAMIC CHIP 22PF		5%	50V

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REF.NO.	PART NO.	DESCRIPTION		REMARK
C912	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C913	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C914	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C915	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	
C916	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C917	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C918	1-104-664-11	ELECT 47MF	20% 25V	
C919	1-104-664-11	ELECT 47MF	20% 25V	
C920	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C921	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C922	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	
C930	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C932	1-104-555-11	FILM CHIP 0.022MF	5% 16V	
C933	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	
C934	1-104-561-11	FILM CHIP 0.068MF	5% 16V	
C935	1-124-126-00	ELECT 47MF	20% 16V	
C936	1-124-126-00	ELECT 47MF	20% 16V	
C953	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C954	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C958	1-104-664-11	ELECT 47MF	20% 25V	
C959	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C960	1-164-005-11	CERAMIC CHIP 0.47MF	25V	
C963	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C964	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C965	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C966	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C967	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C968	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C969	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C970	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	
C971	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C972	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C973	1-126-966-11	ELECT 33MF	20% 16V	
C974	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	
C976	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	
C977	1-104-539-11	FILM CHIP 0.001MF	5% 50V	
C978	1-124-925-11	ELECT 2.2MF	20% 50V	
C979	1-104-547-11	FILM CHIP 0.0047MF	5% 16V	
C980	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	
C981	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	
C982	1-107-561-11	FILM CHIP 0.01MF	5% 50V	
C983	1-124-126-00	ELECT 47MF	20% 16V	
C984	1-104-664-11	ELECT 47MF	20% 25V	
C985	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C986	1-104-563-11	FILM CHIP 0.1MF	5% 16V	
C987	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	
C988	1-124-126-00	ELECT 47MF	20% 16V	
C989	1-104-563-11	FILM CHIP 0.1MF	5% 16V	
C990	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	
C991	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C992	1-163-038-00	CERAMIC CHIP 0.1MF	25V	

<CONNECTOR>

CN901	*1-564-514-11	PLUG, CONNECTOR 11P
CN902	*1-564-510-11	PLUG, CONNECTOR 7P
CN907	*1-564-509-11	PLUG, CONNECTOR 6P
CN908	*1-564-508-11	PLUG, CONNECTOR 5P
CN909	*1-564-507-11	PLUG, CONNECTOR 4P
CN910	1-764-027-11	SOCKET, CONNECTOR 20P
CN911	1-764-027-11	SOCKET, CONNECTOR 20P

<DIODE>

D901	8-719-404-46	DIODE MA110
D902	8-719-404-46	DIODE MA110
D903	8-719-800-76	DIODE 1SS226
D904	8-719-800-76	DIODE 1SS226
D905	8-719-404-46	DIODE MA110
D906	8-719-404-46	DIODE MA110
D907	8-719-404-46	DIODE MA110
D908	8-719-404-46	DIODE MA110
D909	8-719-404-46	DIODE MA110
D910	8-719-404-46	DIODE MA110
D911	8-719-800-76	DIODE 1SS226
D912	8-719-800-76	DIODE 1SS226
D913	8-719-800-76	DIODE 1SS226
D914	8-719-800-76	DIODE 1SS226
D915	8-719-800-76	DIODE 1SS226
D917	8-719-404-46	DIODE MA110
D920	8-719-404-46	DIODE MA110

<FILTER>

FL951	1-236-071-11	ENCAPSULATED COMPONENT
FL956	1-236-071-11	ENCAPSULATED COMPONENT
FL957	1-236-071-11	ENCAPSULATED COMPONENT

<IC>

IC901	8-759-182-62	IC CXD8478Q
IC902	8-759-156-55	IC CD74HC4046AM
IC903	8-759-074-40	IC PST572DMT-T1
IC904	8-759-261-57	IC SC400646FU
IC905	8-759-189-89	IC SN751701PS-ELL2000
IC908	8-759-008-67	IC MC14066BF
IC909	8-759-981-48	IC TL082M
IC911	8-759-925-90	IC SN74HC74ANS
IC912	8-759-925-72	IC SN74HC02ANS
IC913	8-759-191-50	IC TDA9102C
IC914	8-759-981-48	IC TL082M

<COIL>

L905	1-412-537-31	INDUCTOR	100UH
L906	1-408-421-00	INDUCTOR	100UH
L907	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q905	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q906	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q907	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q909	8-729-901-00	TRANSISTOR DTC124EK
Q910	8-729-232-13	TRANSISTOR 2SK1078
Q912	8-729-120-28	TRANSISTOR 2SC1623-L5L6

<RESISTOR>

R260	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R261	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R262	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R265	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R266	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R269	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R270	1-216-049-00	METAL GLAZE	1K	5%	1/10W

N

REF.NO.	PART NO.	DESCRIPTION				REMARK
R272	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R280	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R281	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R282	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R283	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R284	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R285	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R286	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R287	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R288	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R289	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R290	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R291	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R292	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R293	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R294	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R295	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R296	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R297	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R298	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R299	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R900	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R902	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R903	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R904	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R905	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R906	1-216-682-11	METAL CHIP	20K	0.50%	1/10W	
R907	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R908	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R909	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R910	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R911	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R912	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R913	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R914	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R915	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R916	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R917	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R918	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R919	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R920	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R921	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R922	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R923	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R924	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R925	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R926	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R927	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R928	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R929	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R931	1-216-682-11	METAL CHIP	20K	0.50%	1/10W	
R933	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R934	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R935	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R936	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R937	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R938	1-216-672-11	METAL CHIP	7.5K	0.50%	1/10W	
R939	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R940	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R941	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R942	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R943	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R944	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R945	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R946	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R947	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R948	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R949	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R950	1-216-694-11	METAL CHIP	62K	0.50%	1/10W	
R951	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R952	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R953	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R954	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R955	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R956	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R957	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R958	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R960	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R961	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R962	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R963	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R964	1-215-403-00	METAL	180	1%	1/4W	
R965	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R966	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R967	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R968	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R969	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R970	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R971	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R972	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R973	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R974	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R975	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R976	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R977	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R978	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R979	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R980	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R981	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R982	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R983	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R984	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R985	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R986	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R987	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R988	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R990	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R991	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R992	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R993	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R994	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R995	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R996	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R997	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R998	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R999	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<CRYSTAL>

X901	1-567-890-11	VIBRATOR, CRYSTAL	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
	⚠.1-223-417-11	RESISTOR ASSY (HIGH-VOLTAGE)	
	⚠.1-251-141-11	INLET, AC (3P)	
	⚠.1-406-790-31	COIL, DEMAGNETIZATION	
	⚠.1-452-729-11	NECK ASSEMBLY (NA3011)	
	1-537-583-11	TERMINAL BOARD ASSY, I/O	
	1-900-048-40	CONNECTOR ASSY, MICRO 8P (SUB HARNESS)	
	1-900-076-09	CONNECTOR ASSY (MAIN HARNESS)	
V901	⚠.8-736-048-90	ITC ASSY (GDM-20E01T)	
	⚠.8-736-050-90	ITC ASSY	